

MASS. EA 40.2:W 11/2



# **Metropolitan District Commission Division of Watershed Management**

## **Wachusett Reservoir Watershed Public Access Plan Update**



June 2003

## ABSTRACT

The Metropolitan District Commission Division of Watershed Management (MDC/DWM) owns acres of land in the Wachusett Reservoir watershed. MDC/DWM manages these watersheds primarily for water quality protection, drinking water supply, and environmental resource protection purposes. The Metropolitan District Commission Division of Watershed Management Wachusett Reservoir Watershed Public Access Plan Update 2003 explains MDC/DWM policies and outlines control measures to be used to mitigate impacts from public access on those lands. This Plan includes policies for common recreational activities that occur on the land and water resources in the Wachusett Reservoir watershed. This update builds upon the information provided in the 1996 MDC Public Access Plan for the Wachusett Watershed and uses current regulations and legislation to outline policies for public access to MDC/DWM property in Boylston, Clinton, Holden, Hubbardston, Leominster, Princeton, Rutland, Sterling, and West Boylston. MDC/DWM will begin implementation of the MDC/DWM Wachusett Reservoir Watershed Public Access Plan Update 2003 in July, 2003.

### Acknowledgements:

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Unless noted otherwise, all black & white historic photographs courtesy of the Massachusetts State Archives; all color photographs and black & white picture of Stillwater Farm by MDC/DWM. Cover photograph: panoramic view of Wachusett Dam, spring 1919.

All maps produced by MDC/DWM GIS staff Craig Fitzgerald and Paul Penner, using MDC and MassGIS data.

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# **Wachusett Reservoir Watershed Public Access Plan Update 2003**

## **I. Introduction**

The Purpose of this plan is to guide and control public access and use of lands managed by the Metropolitan District Commission Division of Watershed Management (MDC/DWM) within the Wachusett Reservoir watershed. The 117 square mile Wachusett Reservoir watershed includes portions of Boylston, Clinton, Holden, Hubbardston, Leominster, Paxton, Princeton, Rutland, Sterling, West Boylston, Westminster, and Worcester.

Public access to and recreational use of water supply lands are complex and often controversial issues. There is an inherent conflict between water supply protection and public demand for access to water supply lands. Human activity on or near water supply source waters can introduce disease-causing agents to the water supply. Water supply managers must exercise caution when considering policies for public access and recreation on water supply lands. At the same time, the Division recognizes that these reservoirs and the MDC lands surrounding them are valuable environmental resources of the Commonwealth that are attractive to watershed residents and the general public. MDC/DWM views its Public Access Plans as a blueprint for determining the levels of access that may be allowed without risking water supply safety and security or re-directing resources of a Division whose primary responsibility is water supply protection.

## **A. Overview of the MDC/MWRA Water Supply System**

### **1. Brief History**

Since 1919, the Metropolitan District Commission (MDC), a state agency within the Massachusetts Executive Office of Environmental Affairs (EOEA), has functioned to protect metropolitan Boston's drinking water supply in accordance with M.G.L. Chapter 350 of the Acts of 1919 §123. In 1984, the Massachusetts legislature, under M.G.L. Chapter 372 of the Acts of 1984, divided the former MDC Water Division into the MDC Division of Watershed Management and the Waterworks Division of the Massachusetts Water Resources Authority (MWRA). The MDC/DWM became responsible for reservoir watershed operation and management to supply a safe and sufficient supply of water to the MWRA. The MWRA became responsible for the treatment and distribution of this water. The MDC/DWM protects the reservoir water quality by managing and controlling activities occurring within lands and waters in the respective watersheds. Together, MDC/DWM and the MWRA provide drinking water to more than 2.5 million residents in forty-seven communities.

The MDC/MWRA Water Supply System is comprised of two supply reservoirs, one upstream of the other. Wachusett Reservoir, the terminal supply reservoir, receives runoff from its watershed as well as transfers from the Quabbin Reservoir, through the Quabbin Aqueduct. Flow from the Ware River Watershed, located between the Quabbin and Wachusett Reservoir watersheds, can be diverted to Quabbin Reservoir by reversing flow in the Quabbin Aqueduct. Thus, Ware River flows can only be diverted to Quabbin Reservoir when the Quabbin Aqueduct is not being used to transfer flow from Quabbin to Wachusett (see Figure 1).

## 2. MDC Division of Watershed Management Mission

The Division's mission is laid out in its enabling legislation and subsequent amendments, found at M.G.L. ch. 92, §§ 104 - 120. The statute directs the MDC/DWM to:

*...construct, maintain and operate a system of watersheds, reservoirs, water rights and rights in sources of water supply [to] supply thereby a sufficient supply of pure water to the Massachusetts Water Resources Authority, and [to] utilize and conserve said water and other natural resources to protect, preserve and enhance the environment of the Commonwealth and to assure the availability of pure water for future generations.*

Building on this legislatively-defined mission, MDC/DWM's current responsibilities include:

- ♣ Maintenance and operation of the source facilities (including dams) safely and efficiently.
- ♣ Preservation and enhancement of the water quality of the supply sources, using education, enforcement, and cooperation to meet State and Federal water quality standards, and protect public health.
- ♣ Watershed management activities associated with surface water protection.
- ♣ Regulatory compliance with specific directives of the Legislature, such as the protection of the water supply sources, consideration of recreation opportunities, and enforcing rules and regulations for MDC/DWM lands and water resources.
- ♣ Public outreach and education to involve watershed towns, residents, and the public to increase stewardship of the water resources under the DWM's care and control (MDC/DWM, 1998).

MDC/DWM staff concentrates on the management, operation, and maintenance of the MWRA/MDC water supply system watersheds, reservoirs, dams, and dikes. Division staff includes professional engineers, analysts, planners, watershed rangers, foresters, natural resources specialists, bacteriologists, geographic information specialists, wildlife biologists, and support staff with a variety of skills and training. Division staff carry out specific watershed protection programs, provide public outreach and environmental education to watershed communities and visitors, and administer and enforce specific watershed protection regulations (350 CMR 11.00). MDC/DWM staff activities are guided, integrated, and prioritized by the *MDC/DWM Watershed Protection Plans and Updates* (MDC/DWM, 1991, 1998, and 2000). Public access management within land owned by or on waters controlled by the Division is an important element of the MDC/DWM comprehensive watershed protection program.



# GENERAL PLAN of the MDC-DWM/MWRA WATER SUPPLY SYSTEM WATERSHEDS, RESERVOIRS, INFRASTRUCTURE and USER COMMUNITIES

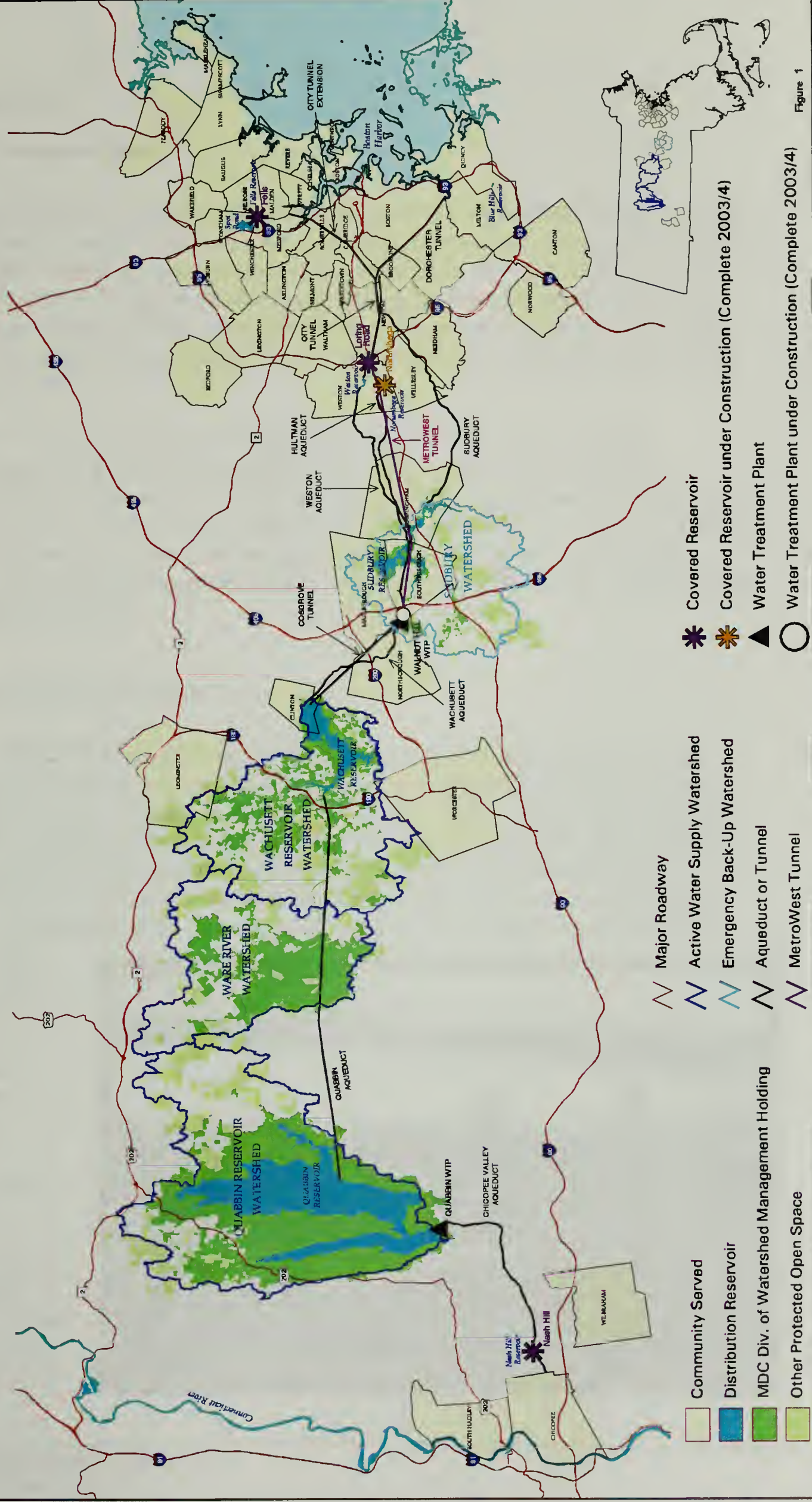


Figure 1



## B. Plan Update

### 1. Watershed Protection Plans

In 1991, the MDC/DWM and MWRA prepared Watershed Protection Plans for the Wachusett Reservoir and Quabbin Reservoir/Ware River watersheds, respectively. These were the first comprehensive plans written for management of the watersheds. In 1998, DWM updated the 1991 Wachusett Reservoir Watershed Protection Plan; the Quabbin Reservoir Watershed Protection Plan was updated in 2000. The Plan Updates reflect the shift of the water supply industry and federal drinking water regulations towards concern for microbial contaminants that can cause acute illness.

Recreational use of watershed lands and waters is a potential cause of water supply contamination and was ranked as a moderate priority in the updated Watershed Plans. MDC/DWM controls recreational use on its water supply lands through specific regulations and policies set forth in the Public Access Plans. MDC/DWM has developed and updated its Public Access plans for each of the four watersheds under its care and control (Sudbury Reservoir – 1994 and 2002; Wachusett Reservoir – 1996; Quabbin Reservoir – 1988 and 1998; Ware River – 1988 and 2000).

### 2. Purpose of a Public Access Plan

The purpose of MDC/DWM's Public Access Plans is to guide and control public access, incorporating the most current information available, so as to minimize the impacts from recreational activities on the drinking water supply and other lands managed on a watershed basis by the MDC. The federal Safe Drinking Water Act and Amendments, state drinking water regulations, and the Metropolitan District Commission's Watershed Protection Regulations require that public access on drinking water supply lands must be managed to minimize the risk of waterborne disease and to control other impacts such as sedimentation.

The primary function of these water supply lands is to protect the MDC's ability to provide high quality drinking water for current and future generations. The MDC/DWM's access plans detail the Division's management rationale and explain which programs and activities are used to limit and control access to these lands and waters.



DECEMBER 7, 1919 WACHUSETT RESERVOIR, NORTHWESTERLY FROM CARVILL HILL CLINTON, SHOWING WACHUSETT MOUNTAIN IN THE DISTANCE.

7610

Public access, in the Division's management context, is a wide-ranging concept. It includes the physical ability to enter and use land for recreational activities; the legal restrictions or prohibitions related to access or specific land or water-based recreational activities; sign placement; mapping; user education; intergovernmental coordination; public safety; and protection of public and private property rights.

### **3. 1996 Wachusett Public Access Plan**

MDC policy has traditionally allowed passive recreation on MDC-owned lands in the Wachusett Reservoir watershed. In 1996, the Division produced The Wachusett Watershed MDC Public Access Plan (the 1996 Plan), the first written Public Access Plan for the Wachusett Reservoir watershed. The goal of this plan was to reduce the existing level of threats to water quality from public use of MDC/DWM watershed lands and to provide management programs that afford long term protection of Wachusett Reservoir. The 1996 Plan surveyed problems resulting from existing public access to watershed lands. The problems identified included:

- ♣ Dumping.
- ♣ Poor sanitation (evidence of people and domestic animals defecating near the reservoir and improper disposal of dirty diapers).
- ♣ Swimming.
- ♣ Domestic animals (dogs running and roaming; owners not cleaning up after them).
- ♣ Damage from snowmobiles.
- ♣ Shoreline erosion (from extensive hiking, biking, and other human uses).

While MDC/DWM realizes that most of the visiting public complies with MDC rules and regulations, it was determined that new policies were needed to provide greater control over the minority of users who disregard or abuse the privilege of access to MDC/DWM lands. In addition, it was clear that some activities that were allowed needed to be limited or curtailed.

Management recommendations in the 1996 Plan focused on surveillance, education, and enforcement to impose greater control over unauthorized activities. Key recommendations in the plan included:

- ♣ Improve protection of Aqueduct Intakes.
- ♣ Provide greater enforcement of watershed regulations.
- ♣ Provide sanitary facilities at key sites.
- ♣ Provide better signs on MDC/DWM lands.
- ♣ Expand educational programs.
- ♣ Increase community participation.
- ♣ Incorporate current best management practices (BMPs) in site maintenance activities.

Chapter IV contains a detailed status review of the recommendations made in the 1996 Plan.

### **4. Why Update the Plan?**

It is prudent to periodically revisit the Plan to identify changes in existing conditions, to identify

and evaluate the policies that have been implemented, and to assess additional needs to meet the mandate of water quality and resource protection. Legislative mandates also require the Division of Watershed Management to update its watershed protection plans on a five-year basis. In addition, since 1996, the desire to increase recreational opportunities on MDC property, and all other Commonwealth lands, has steadily grown due to the region's population growth. The Plan Update revises implementation priorities, re-assesses the public's recreational desires, and develops a response to evaluate these demands with the Division's primary goals of water supply and resource protection. The policy review and recommendations made in this Plan Update build upon the original 1996 Plan.

The events of September 11, 2001 have heightened concerns regarding security and the need to protect public works from possible terrorist action, as well as to reassure the public that security plans are in place. These issues must be considered as the 1996 Plan is revised.

## **5. Public Input**

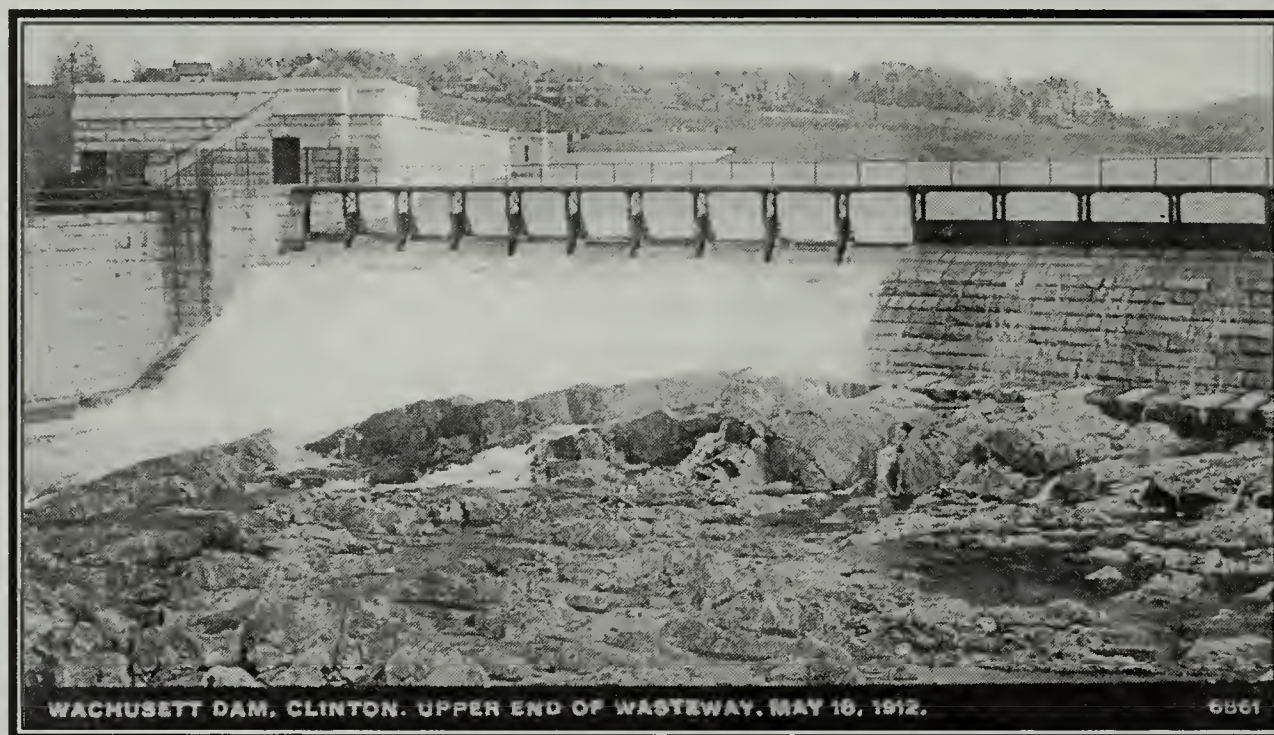
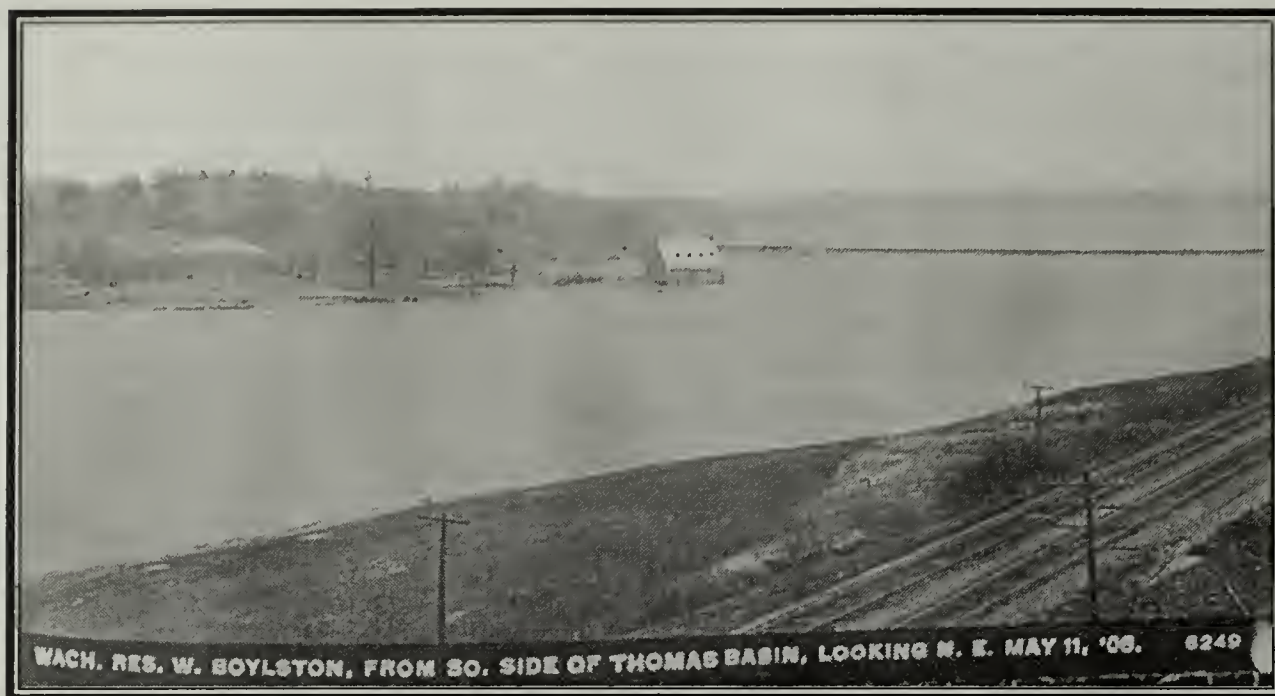
MDC/DWM has found public access management on public drinking water supply lands and waters to be a complex and controversial issue. Decisions made by the MDC may impact watershed stakeholders, such as the water supply managers who must comply with regulations, drinking water consumers who pay for watershed protection through water bills, and the host communities. In addition, private landowners living next to water supply lands may be positively or negatively affected by public access management decisions (Bureau of Land Management, 1991,1993,1998). Formal and informal recreational groups who have been restricted in the watershed areas may be affected. Other interested parties include water supply advisory committees, the actual water supply watershed communities, and countless individual stakeholders.

The constraints and desires related to public access on drinking water supply land are numerous. Public input thus plays an important role in the Division's process of updating a Public Access Plan that addresses the Division's mandate of protecting a drinking water supply while also evaluating the recreational desires of the reservoir watershed's host communities. The Watershed Advisory Committee, a legislatively mandated citizen's advisory group, reviewed and provided input on this plan update. A draft of the plan was distributed to watershed towns and posted on the MDC website in early June, 2003, and a public hearing was held on June 24, 2003. Appendix C summarizes the public concerns and the MDC/DWM response.

## **6. Public Access Plan Goals**

The Division's public access management goals are used to develop the policies outlined in the Plan. These goals are:

- ♣ **To protect drinking water resources from public access impacts.**
- ♣ **To properly manage a public resource used as a source supply of drinking water.**
- ♣ **To protect historic and prehistoric sites within the watershed.**
- ♣ **To improve and protect long-term ecosystem health and biological diversity within the watershed.**
- ♣ **To assure that public access is safe and appropriate to MDC/DWM's water quality goals.**



*These historic photographs show the flow of water from Thomas Basin to the Nashua River.*

## II. Existing Conditions

### A. Watershed Description

The Wachusett Reservoir watershed is located in east-central Massachusetts and includes approximately 117 square miles (74,919 acres) of land and water resources. Boundaries of the Wachusett Reservoir watershed lie within 12 municipalities of Worcester County: the towns of Boylston, Clinton, Holden, Hubbardston, Paxton, Princeton, Rutland, Sterling, West Boylston, Westminster, and the cities of Leominster and Worcester. The Wachusett Reservoir watershed makes up the headwaters of the Nashua River watershed (see **Figure 2**). It is located in the southwest corner of the watershed, on the south branch of the Nashua River, five miles north of the City of Worcester.

Construction of the reservoir began in 1898, was completed in 1905, and filled with water in 1908. The reservoir was created by damming the south branch of the Nashua River, above Clinton, to flood the upper part of the Nashua River Valley. Water released from the dam is returned to the Nashua River and flows northward, where it converges with the north branch of the Nashua River and flows north to the Merrimack River in New Hampshire.

Wachusett Reservoir was one of the largest reservoirs in the world at the turn of the last century, with a surface area of 6.2 square miles and a mean depth of 49 feet. Wachusett Reservoir was the principal source of water supply to the Boston metropolitan area until 1946, when the Quabbin Reservoir was initially filled to capacity. The reservoir has a capacity of 65 billion gallons and within the watershed it is primarily fed by the network of rivers and streams that make up the Quinapoxet and Stillwater basins. The largest contributor, however, to the Wachusett Reservoir on an average annual basis is the water transferred from the Quabbin Reservoir. Under normal operating conditions, the MDC/DWM Watershed System (Quabbin Reservoir, Ware River and Wachusett Reservoir) provides approximately 260 million gallons per day (mgd) of source water (see **Table 1**).

The Wachusett Reservoir watershed system serves a primary role in the delivery of drinking water, as the reservoir provides final storage of source water to the MWRA before it is distributed eastward to 46 communities in metropolitan Boston. Water is taken from the Wachusett Reservoir at Cosgrove Intake and delivered eastward through the MWRA transmission and distribution system. In addition to the MWRA withdrawals, the Town of Clinton makes direct withdrawals from the reservoir, and Leominster and Worcester also have the capability to make reservoir withdrawals. The watershed communities of Boylston, West Boylston, Holden and Sterling draw from groundwater sources within the Wachusett Reservoir watershed. West Boylston and Boylston have town wells located on MDC property.

The diversity of natural and cultural features of the watershed creates unique qualities that are sought after for recreational opportunities by both local residents and tourists. The Wachusett Reservoir and surrounding MDC lands purchased for water supply protection have preserved some of the remaining noteworthy and distinctive landscapes in central Massachusetts and the Worcester plateau area. The topography of the watershed is generally rolling and hilly with steeper, mountainous terrain in the vicinity of Mount Wachusett. The Wachusett Reservoir is the lowest point of elevation at 395 feet above mean sea level and the highest elevation is at the summit of Mount Wachusett at 2,006 feet.

**Table 1: Wachusett Reservoir Watershed Facts and Figures**

**Table 1A: Wachusett Reservoir Facts**

Year Completed	1905
Dam Length	944 feet
Volume Capacity	65 billion gallons
Surface Area	6.5 square miles
Watershed Area	117 square miles
Shoreline	37 miles
Length	8.5 miles
Maximum Width	1.1 miles
Mean Width	0.7 miles
Maximum Depth	128 feet
Mean Depth	49 feet
Normal Operation Range	387-392 feet
Intake Depth	364 & 345 feet
Overflow Elevation	395 feet

**Table 1B: Wachusett Reservoir Watershed Open Space Ownership**

<b>Open Space Owner</b>	<b>Acreage</b>	<b>Percent of Wachusett Watershed Land*</b>
<u>MDC</u>		
Fee	16,472**	24%
Conservation Restriction	2,003	3%
Sub-Total MDC	18,475	27%
<u>Other Protected Open Space</u>		
Municipalities	7,643	11%
EOEA Agencies	6,838	10%
Non-profit orgs.	1,589	2%
Sub-Total Other Protected	16,070	23%
<b>Total Protected Open Space</b>	<b>35,318</b>	<b>50%</b>

Data from MDC General Counsel and MDC/DWM GIS

\* Excluding Reservoir Surface

\*\* MDC and MWRA make Payments in Lieu of Taxes (PILOT) on these lands to the towns in which they are located (see [www.state.ma.us/mdc/pilot.htm](http://www.state.ma.us/mdc/pilot.htm)).



# Wachusett Reservoir Watershed

Statute Miles

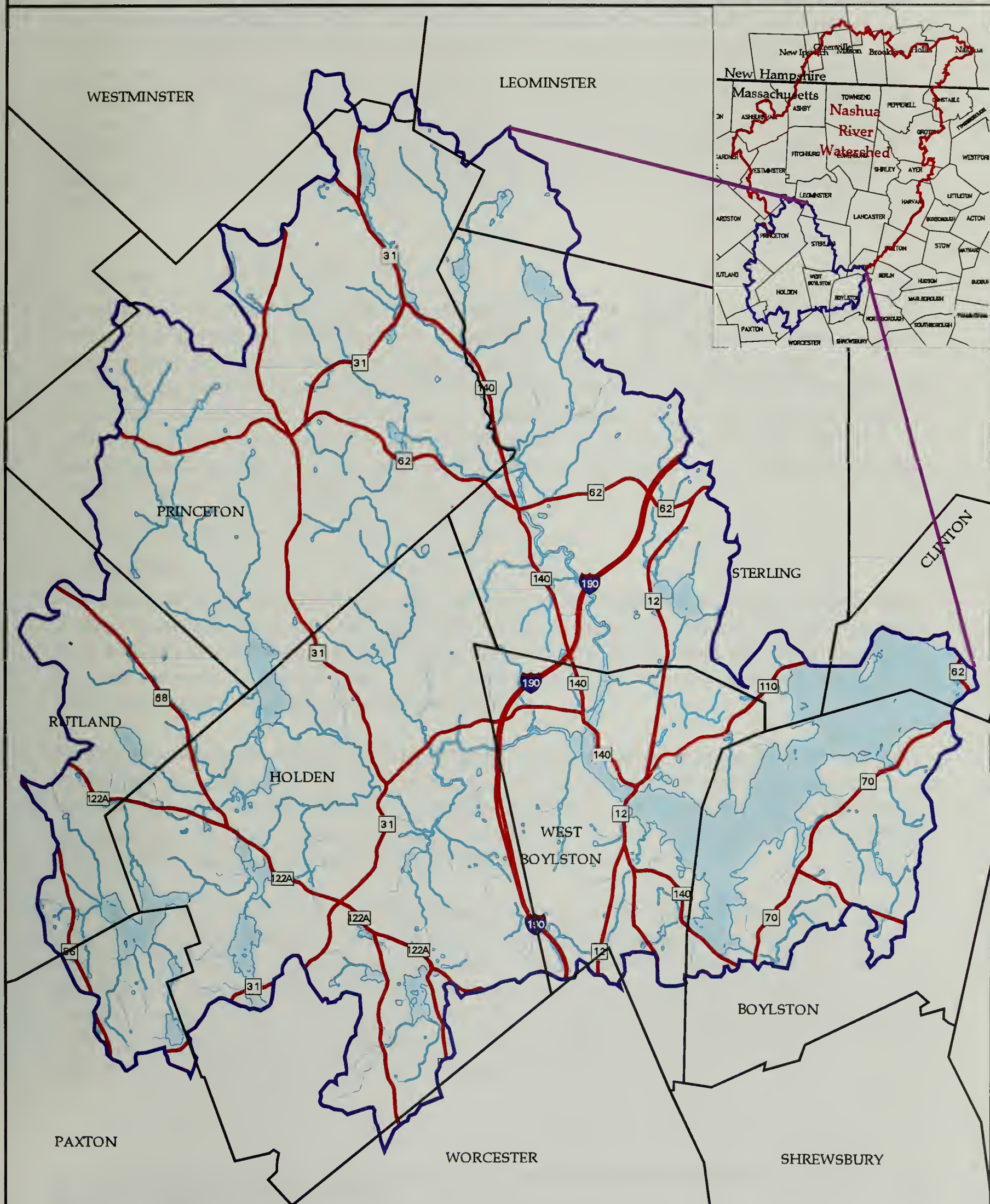
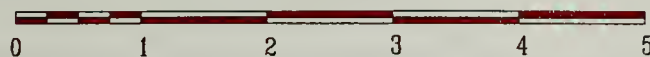


Figure 2



## B. Natural Resources

The MDC Division of Watershed Management published the Wachusett Reservoir Watershed Land Management Plan 2001-2010 in 2001. This plan details the Division's goals and objectives with regards to maintaining its properties to promote long term protection and maintenance of water quality. This document contains significant material on the hydrology, forestry, land use, wildlife and cultural resources of the watershed. The following sections are derived from that plan; more complete information on each of these topics can be found in both Wachusett Reservoir Watershed Land Management Plan 2001-2010 and the 1998 Wachusett Reservoir Watershed Protection Plan Update (available on-line at [www.state.ma.us/mdc/dwmplans.htm](http://www.state.ma.us/mdc/dwmplans.htm)).

### 1. Water

Inland waters within the Commonwealth of Massachusetts are classified under 314 CMR 4.03. These classifications are based on actual or intended use of the water resource. Class A waters are designated for use as a source of public (drinking) water supply. Class B waters are designated for the uses of protection and propagation of fish, other aquatic life and wildlife; and for primary and secondary contact recreation. Class C waters are designated for the uses and protection of fish, other aquatic life and wildlife; and for secondary contact recreation. The Massachusetts Department of Environmental Protection classifies all surface waters within the Wachusett Reservoir watershed as Class A waters.

### 2. Land Use

Vegetative cover in the watershed consists primarily of hardwood forest (deciduous trees such as maples, birches, ashes and oaks) and hardwood forest mixed with softwood forest (evergreen trees such as pines and hemlocks) with some scattered areas of cultivated land (corn, apples, hay) and wetlands. A large portion of the forested lands in the watershed are either owned by MDC or are otherwise protected (**see Figure 3**).

Half of the watershed is either owned by the MDC or is other protected conservation land (**see Table 1B**). Approximately 71% of the watershed is currently undeveloped forests and wetlands. The remaining 25% of the watershed includes 7% agriculture use, 8% residential use, 8% open water, less than 1% commercial office or industrial uses, and 7% other uses, such as transportation facilities and recreation (**see Figure 4**).

MDC/DWM owned lands contain forests, shoreline areas, fields, lawns, and buildings. The historic land management practices of the MDC/DWM have focused on forestry. New responsibilities have been introduced to the task of managing MDC lands from the activities of the Land Acquisition Program and other Division initiatives, such as wildlife habitat manipulation and public access controls. MDC/DWM's goal is to "establish and maintain the most effective and practical watershed cover in order to maximize the natural filtering capability of the lands surrounding the Wachusett Reservoir."

### 3. Wildlife Resources

The Wachusett Reservoir watershed supports an abundance of wildlife species. Wachusett Reservoir supports many water-based species (common loons, spotted sandpipers, bald eagles), and many streams, lakes and beaver ponds within the watershed host a variety of birds, amphibians, and reptiles. MDC forests provide habitat for a diversity of birds and mammals, including white-tailed deer, turkey, grouse, raccoons, and fisher. In addition, neotropical songbirds, including black and white warblers, black-throated green warblers, and scarlet tanagers utilize MDC forests for breeding and migratory rest stops. Although a majority of MDC-owned land in the Wachusett watershed is forested, several large tracts of early successional habitat do exist. These large open, grassy areas provide critical habitat for a variety of species dependent on open lands, including various insects, eastern meadowlarks, bobolinks, and a variety of sparrows.

The Wachusett Reservoir watershed is a mosaic of habitat types and conditions. MDC-owned land within the watershed is primarily forested, while privately owned lands are comprised of small farms, woodlots, and residential areas. This patchwork of habitats is both a benefit and detriment to wildlife species. A greater diversity of species may exist because of the diversity of habitats. However, the fragmented nature of the watershed makes it more difficult for animal species to travel and interact, and in some cases, the different habitat areas may be too small to support individual animals or populations.

Probably the most important feature of MDC-owned land in the Wachusett watershed is that it is protected from development. As the Boston metropolis expands westward, there remain fewer and fewer acres of open space. The protection MDC lands provide to wildlife species is critical to their long-term survival.

While a great deal of information exists about certain wildlife taxa (i.e., birds, mammals) through information collected from surveys and observations, little is known about other Wachusett wildlife such as insects, butterflies, dragonflies, and other less obvious species.

### 4. Cultural Resources

Humans have occupied the Wachusett Reservoir region for 12,000 years. Currently there are twenty-seven recorded prehistoric Native American sites within, or in close proximity to, the Wachusett Reservoir watershed. This quantity is known to be low as it represents only those recorded at the Massachusetts Historical Commission, and does not take into account the many more that are known to collectors but are not recorded. Combined, the recorded and unrecorded sites clearly attest to the viability of this region's habitat for human habitation for thousands of years, and establishes the archaeological sensitivity of the region.

Looking at more recent history, when the construction of the Wachusett Reservoir began in 1895, it was the largest project of its kind in the United States. Today, the many aqueducts, dams, dikes, reservoirs, shafts and pumping stations that were built to create Wachusett Reservoir and convey its water to the Sudbury Reservoir and then on to Boston are recognized as historically significant at both the local and national levels. Accordingly, in 1989, these engineering features, and many more, were listed on the National Register of Historic Places as the *Water Supply System of Metropolitan Boston Thematic Resource Area*. The listing includes

# Wachusett Reservoir Watershed



Open Space

Statute Miles

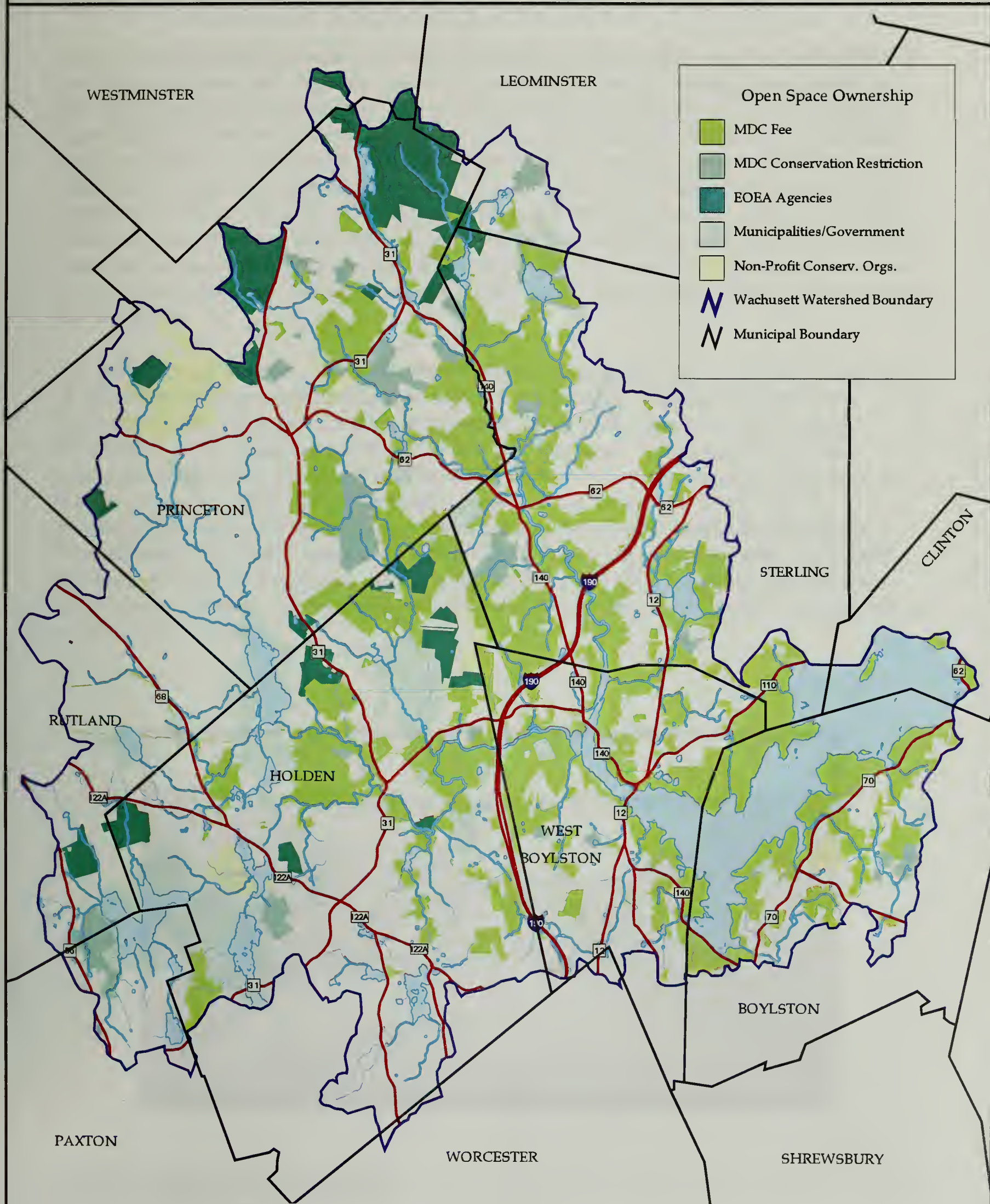


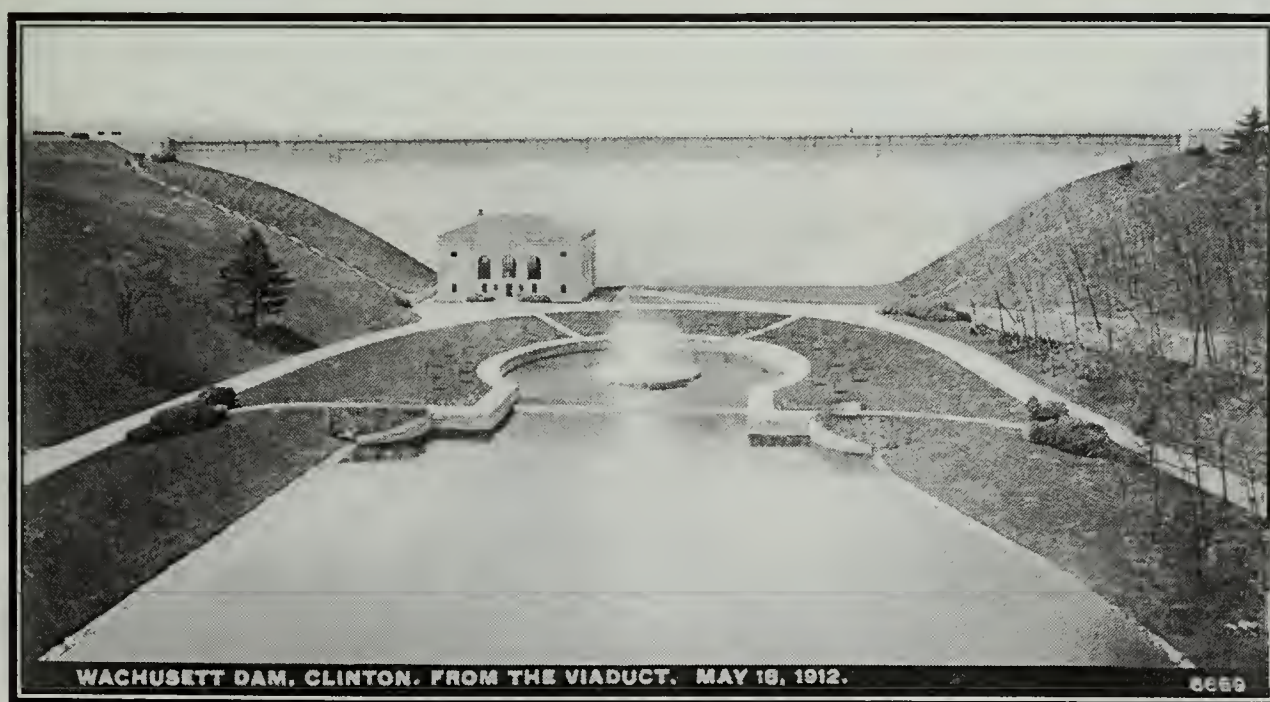
Figure 3



the 91 individual buildings and structures that comprise the entire Metropolitan Water Supply System (excluding Quabbin, which was not yet 50 years old at the time of the listing). The Wachusett Reservoir watershed is represented in the National Register by the *Wachusett Aqueduct Linear District*, which contains fifteen buildings and structures, and the *Wachusett Dam Historic District*, which contains six individual buildings and structures.

There was differential treatment to existing buildings and structures during the construction of the Wachusett Reservoir. In some cases the superstructures were carefully disassembled and relocated to unthreatened locations. These actions often left well-defined and well-preserved cellar holes, mill raceways, barn foundations, etc. In other instances, buildings were knocked down and pushed in, and graded over, leaving no evidence except an occasional ornamental planting that seems curiously out of context. A good example of differential treatment is the case of the Old Stone Church. The Old Stone Church is the only structure of the old center of West Boylston remaining on its original site. The church overlooks a section of West Boylston that was inundated by the construction of the reservoir. Other nearby buildings and structures were razed or relocated. Today, the church stands alone, silently looking out over the waters of the Wachusett.

The buildings and structures in the Wachusett National Register Listing represent an ensemble of significant technical, engineering, and architectural features, buildings and structures. Additionally, the Old Stone Church and Stillwater Farm, while more parochial in nature, nevertheless embrace the historic character of a past long gone. The designation of these properties to the National Register (or Declared Eligible for it) automatically places them on the State Register, thereby affording them a degree of protection from ill-advised or uninformed development or alteration. Several statutes have been passed that provide the Massachusetts Historical Commission with jurisdiction to review proposed projects on State and National Register Properties. MGL ch. 9, §§ 26-27c and Ch. 254 of the Acts of 1988 establishes the authority of the MHC, outlines the review process, and clarifies who and what is covered under the law.

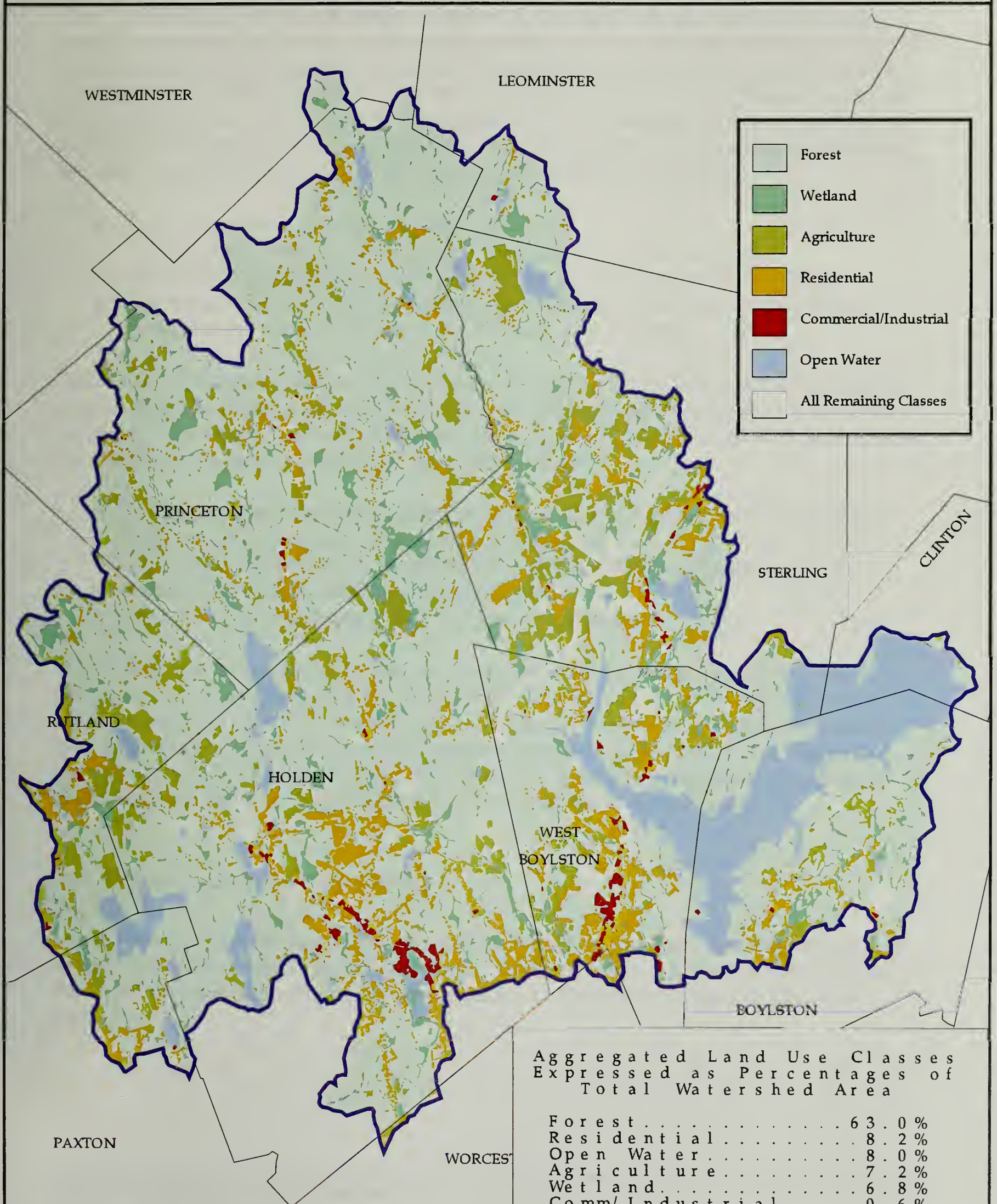
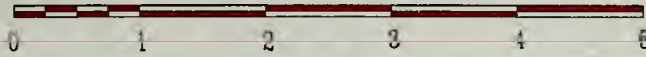


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# Wachusett Reservoir Watershed

## Land Use

Statute Miles



### Aggregated Land Use Classes Expressed as Percentages of Total Watershed Area

Forest	63.0 %
Residential	8.2 %
Open Water	8.0 %
Agriculture	7.2 %
Wetland	6.8 %
Comm/ Industrial	0.6 %

Remaining Classes . . . 6.2 %

Figure 4



# III. Recreational Activities and Water Supply Compatibility

The Metropolitan District Commission Division of Watershed Management must carefully weigh the potential for impacts to the drinking water supply and other environmental resources before considering any uses on its properties. In general, any human use will cause impacts. The job for MDC/DWM is to determine what uses may be allowed in which areas in order to limit potential water quality impacts to acceptable levels. Because the Division purchases and maintains its lands for water supply protection, it must err on the side of caution in identifying uses that compromise water supply protection. MDC/DWM must consider:

- Type and intensity of proposed public access use.
- The physical features of the area being considered for public activities.
- The potential for impacts to water quality from the entire spectrum of visitors.
- The resource needs to properly manage any particular use on its properties, always mindful of the primary mission of the Division – water supply protection.

The criteria to determine whether an activity is compatible with the Division's water supply mission identifies whether the activity has the potential to degrade the quality of water in the watershed or to degrade any natural resource within the watershed. MDC/DWM must consider the following information in making such a determination:

- Division of Watershed Management goals, and guiding legislation and regulations.
- Environmental impacts to water quality and land resources.
- Potential for impacts to watershed resources and waterworks infrastructure.
- Potential impacts to staffing and other resources.
- The safety of users, abutters, staff, and general public safety.

The sections that follow discuss numerous recreation activities and evaluate them using the criteria outlined above. Unless noted otherwise, 350 CMR 11.09(2) are the regulations that the MDC administers concerning public access on Division of Watershed Management property (see **Appendix B**). As stated previously, because the Division purchases and maintains its lands for drinking water supply protection, it must err on the side of caution in restricting or prohibiting uses that may be incompatible with drinking water supply protection.

## A. Water Contact Activities

Direct water contact activities by humans, such as swimming and wading, pose an established threat to the water supply and to public safety. The link between water contact activities and the spread of water-borne disease is well-documented. These activities are prohibited by regulation.

## **B. Boating (Motorized and Non-motorized)**

All boating activities, both motorized and non-motorized, are prohibited by current regulations in the Wachusett Reservoir watershed, except in areas specifically designated by the Commission. Although boating poses less of a threat to the water supply than swimming, it is still considered an unnecessary threat to a water supply due to the likelihood of water contact. Boating on the Wachusett Reservoir would require a managed program to protect public safety; managing these activities would divert MDC resources from programs directly linked with water supply protection. Private boats also have the potential to introduce or perpetuate exotic and/or nuisance vegetation. Boating activities are prohibited on MDC waters in the Wachusett Reservoir watershed with the exception of West Waushacum Pond and water bodies in the Tributary Headwaters Zone that are capable of handling non-motorized boats.

## **C. Fishing**

Shoreline fishing is currently allowed in the Wachusett Reservoir watershed, with a fishing season that runs from April until November each year. Shoreline fishing, without water contact, in certain areas and for a limited period of time, does not pose a significant threat to the water supply or other natural resources. Fishing with waders is allowed along streams in particular areas of the Wachusett Reservoir watershed where appropriate access can be gained and public safety concerns are not significant.

## **D. Off-Road Driving (Off-Road Vehicles (ORVs), All-Terrain Vehicles (ATVs))**

This recreational activity has been prohibited by regulation on all MDC/DWM lands in all of its watersheds since 1989. This prohibition is based on significant documentation of the erosion impacts associated with ORV and ATV use, and observations of these effects on non-MDC lands on the Ware River watershed. The prohibition of these activities on MDC lands in the Wachusett Reservoir watershed is not likely to change.

## **E. Snowmobiling**

Snowmobiling has been prohibited by regulation in the Wachusett Reservoir watershed since 1996. Snowmobile use was allowed on a trial basis prior to 1996 in a small section of the Wachusett Reservoir watershed. The agency, however, found considerable damage to the land and users were straying from the marked paths. The prohibition of snowmobiling on MDC lands in the Wachusett Reservoir watershed is not likely to change. Enforcement of this policy is an on-going need, as evidenced by continued illegal snowmobile activity throughout the watershed. The MDC does allow snowmobiling on designated trails within the Ware River watershed (see [www.state.ma.us/mdc/wracsnow.pdf](http://www.state.ma.us/mdc/wracsnow.pdf)).

## F. Horseback Riding

Horseback riding is prohibited by regulation on all MDC watershed lands, except on designated trails that are within the Ware River watershed (see [www.state.ma.us/mdc/wrachorse.pdf](http://www.state.ma.us/mdc/wrachorse.pdf)). Horseback riding is extremely limited due to the threat of fecal coliform contamination and the potential of other pathogens associated with domestic animal manures, as well as the increased potential for erosion of access roads.

The close proximity of MDC/DWM property to tributaries and reservoirs in the Wachusett Reservoir watershed does not allow adequate buffers between horse trails and the water resources. The additional road maintenance required to mitigate erosion impacts from horseback riding would further compromise the limited resources available to the Division for watershed protection.

## G. Dogs and Other Pets

Bringing any animal onto MDC watershed lands is prohibited by regulation except where horses and dogs are authorized at limited areas of the Ware River watershed. Dogs and other domestic animals are sources of fecal contamination and can carry *Giardia* and *Cryptosporidium*; these parasites can spread to wildlife populations and ultimately into the water supply.

There are two exceptions to the domestic pet rules. Dog walking is allowed on MDC/DWM land below the Wachusett Dam, an area that is technically off-watershed because it does not drain into the reservoir. Dogs are also allowed for hunting purposes on MDC/DWM lands in the Wachusett Reservoir watershed. There is historic precedent for the use of hunting dogs on significant areas of land recently purchased by the MDC. The current minor utilization of hunting dogs (see **Appendix A**), combined with the relatively short time-frame of hunting season and the ability to track users through the MDC special hunting permit process, poses a minor threat to water quality. People seeking the opportunity to walk their dog have other, non-MDC land options in the watershed.

## H. Camping

Camping is prohibited by regulation on MDC property. Camping tends to generate larger amounts of trash than hiking and walking. In addition, camping creates human sanitation problems. There are serious water quality concerns associated with deposition of human fecal matter close to tributaries and reservoirs.

Given the lack of sanitary facilities and the significant needs of resource allocation for administration, maintenance, and enforcement, the MDC considers camping inappropriate and it will remain an unauthorized activity in the Wachusett Reservoir watershed.

## **I. Hunting, Trapping**

MDC/DWM regulations prohibit hunting and trapping, except at times and in areas designated by MDC. Hunting arrangements consistent with policy established at Quabbin Reservoir, where hunting is allowed during all state hunting seasons in headwaters lands, should not impact watershed resources in the Wachusett Reservoir watershed. The MDC/DWM found no significant impacts during a two year trial hunting program in the Wachusett Reservoir watershed Tributary Headwaters Zone. Continuation of the program, which requires a valid Massachusetts hunting license and an MDC Special Use permit to hunt on MDC/DWM lands, does not pose a significant threat to water quality.

## **J. Hiking, Nature Study, Bird Watching, Snowshoeing**

Hiking, walking, nature study, bird watching, and snowshoeing are currently allowed throughout the Wachusett Reservoir watershed except in those areas surrounding the Intake Protection Zone. Hiking has relatively minor impact to water quality, unless those walking bring along dogs (see above). Walking on the surface of the Reservoir when frozen is strictly forbidden.

MDC land holdings within the Wachusett Reservoir watershed are surrounded by various parcels of public and private open space. Providing trail connections to adjacent open space areas, where appropriate, will be incorporated into the recommendations in Section V. For example, the MDC/DWM has been actively involved with the Wachusett Greenways organization in developing a regional rail trail. Areas where access must be limited in order to adequately protect water supply and other watershed resources will not be opened to provide trail connections.

## **K. Bicycle Riding**

Regulations restrict off-road bicycle riding to designated areas of MDC/DWM property. The intensive use of trails for biking, if not properly constructed or maintained on a regular basis, can cause severe erosion. Excessive soil erosion has been documented on MDC's metropolitan Boston Reservations where mountain bicycle use occurs. Heavy bicycle usage can also be incompatible with walking and nature observation. Additional policing is needed to monitor both permitted bicycling and illegal off-trail riding, prevent erosion, and ensure the safety of other trail users.

The 1996 Plan allowed bicycle riding in the Tributary headwaters Zone and on the Off-Watershed Lands Zone, with a MDC permit. Specific areas were designated in 1998 for mountain biking. Opportunities for biking have also been expanded by construction of the Mass Central Rail Trail, much of which runs through MDC/DWM property. Due to limited resources for management of public access, recreational use, and user conflicts, MDC is not in favor of adding designated areas for bicycle use on MDC/DWM lands in the Wachusett Reservoir watershed.

## **L. Cross-Country Skiing**

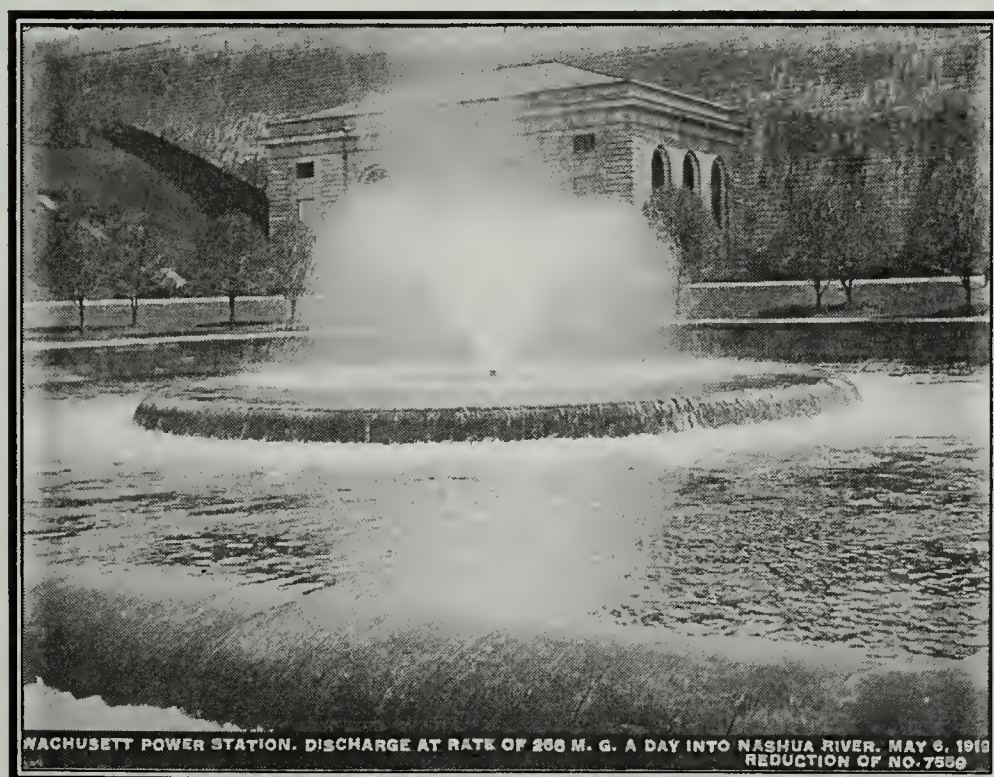
MDC policy allows cross-country skiing in all areas that are open for hiking in the Wachusett Reservoir watershed except along the Promenade at the top of Wachusett Dam. Skiing is prohibited over the reservoir's frozen surface.

## **M. Picnicking**

MDC regulations do not prohibit picnicking on Wachusett Reservoir watershed lands. Since picnicking is an ambiguous term, it should be noted that MDC's regulations prohibit the use of fire, any cooking activity, and alcoholic beverages on all watershed lands under the care and control of the MDC. All trash from picnic activity is the sole responsibility of the individual(s) involved and cannot be left on MDC property. The public must also assume responsibility for proper sanitation, as there will be a limited number of temporary toilet facilities available six months of the year for public use.

## **N. Other Activities**

The activities presented in this section and in Table 3 are not an extensive inventory of recreational activities, rather they are the most common outdoor pursuits and/or those that may present the most serious harm to water quality. All activities that are permitted by the MDC are identified in this plan. Any activity not mentioned in this document should be presumed to be prohibited on MDC/DWM property in the Wachusett Reservoir watershed. The MDC may enter into lease agreements for use of the Division's property that may differ from MDC/DWM policies. Any such contract between the MDC and other parties will dictate allowed uses and any applicable actions necessary to protect water quality. Questions concerning an activity not cited in this plan should be directed to the Wachusett/Sudbury Watershed Rangers at (978) 365-3800.



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## IV. Public Access Policies

### A. 1996 Public Access Policies

The 1996 Public Access Plan provided a comprehensive discussion of policy provisions for general access to a public drinking water supply. The analysis included an overview of Federal and State water supply regulations, a discussion of controls for recreational use, a survey of management controls of large water systems, and a discussion of existing uses of MDC watershed lands.

In addition, the Division of Watershed Management has its own regulations, 350 CMR11.00, promulgated by the Commissioners of the Metropolitan District Commission pursuant to the authority granted under St. 1992 ch.36. The purpose of St. 1992 ch.36 is to improve the protection of the metropolitan water supply. Some restrictions that are especially pertinent are summarized below:

- ♣ Entrance on and exit from land of the Watershed System [Quabbin Reservoir, Ware River, Wachusett Reservoir and Sudbury Reservoir watersheds] shall be made through gates or other designated areas.
- ♣ No Person is allowed within any land of the Watershed System, except from one hour before sunrise to one hour after sunset, unless authorized by a written permit from the Commission or its designee.
- ♣ Powered boats are prohibited within the Waters of the Watershed System except in areas designated by the Commission or its designee.
- ♣ All acts which pollute or may pollute the water supply are prohibited. No litter or refuse of any sort may be thrown or left in or on any land or water within any Watershed System. All Persons within said System shall use the sanitary facilities provided for public use.
- ♣ Cooking and all fires are prohibited within the Watershed System.
- ♣ No Person shall wade or swim in any Tributary or Surface Waters on or within the property of the Commonwealth except at areas designated by the Commission or its designee.
- ♣ Organized sports or activities are prohibited within the Watershed System except by written permit from the Commission or its designee.
- ♣ Possession or drinking of alcoholic beverages is prohibited on MDC properties.
- ♣ No person shall drive a motorized vehicle within the Watershed System except upon roads authorized for such use by the Commission or its designee.

350 CMR 11.09, General Rules and Regulations for the Protection of Watersheds and the Watershed System are included in Appendix B of this report. Chapter III details numerous recreation activities and evaluates them using specific criteria that protect water quality.

Four management zones were developed to help implement the 1996 Plan, providing different levels of access for specific activities (see **Figure 5**). The following is a brief description of these areas:

- ♣ ***The Intake Protection Zone*** provides primary protection of the water supply by prohibiting public access near reservoir intake structures. The Intake Protection Zone includes four miles of reservoir shoreline, at both the North and South Dikes, and the reservoir's South Shore, from Hastings Cove to the Cosgrove Intake.

- ♣ *The Reservoir and Tributary Shorelines and West Waushacum Pond Zone* includes watershed lands around the reservoir and nearby tributaries (Quinapoxet and Stillwater Rivers), and at the West Waushacum Pond.
- ♣ *The Tributary Headwaters Zone* is made up of MDC/DWM lands located outside of the Route I-190 and Route 62 corridor.
- ♣ *The Off-Watershed Lands Zone* is approximately 680 acres of MDC/DWM land that does not drain to the Wachusett Reservoir.

## B. Status of Recommendations made in 1996 Plan

The Key Recommendations made in the 1996 Plan, summarized above, have been implemented. Other recommendations have been partially implemented, due either to resource limitations or re-assessment of the recommendation. Table 2 provides a synopsis of the recommendations made in the 1996 Plan and current implementation status.

**Table 2: Summary and Status of 1996 Public Access Plan Recommendations**

<b>1. Improve Protection of Aqueduct Intakes</b>		
<b>Recommendation</b>	<b>Status</b>	<b>Comments</b>
Reduce access to reservoir shoreline and intake structures by expanding the primary protection zone to include an additional two miles of reservoir shoreline at the North Dike.	Accomplished	Ongoing MDC/DWM Ranger presence is required to ensure compliance with the expanded no-access area.
Prohibit snowmobiles at the North Dike and at all other MDC lands in the Wachusett Reservoir watershed.	Accomplished	Ongoing MDC/DWM Ranger presence is required to keep snowmobiles off of certain MDC - owned areas.
Install additional gates and barriers to prevent access from all recreational vehicles.	Ongoing	Gates and barriers have been added in key locations. Additional measures need to be considered and are discussed in Chapters V and VI.
Allow limited access for hunting on MDC/DWM lands in Tributary Headwaters Zone.	Accomplished	A pilot hunting program was established in 1996. The hunting program was successful, and was made permanent in 1998.
Work with Massachusetts Aeronautics Commission (MAC) to restrict acrobatic and low-flying planes over the reservoir at Wachusett Dam to prevent potential contamination of source water at reservoir intakes in the event of an accident.	Ongoing	Discussions were held on this topic. State and Federal regulations are enforced through coordination with the Massachusetts State Police.

# Wachusett Reservoir Watershed

## Public Access Management Zones



Statute Miles



Figure 5

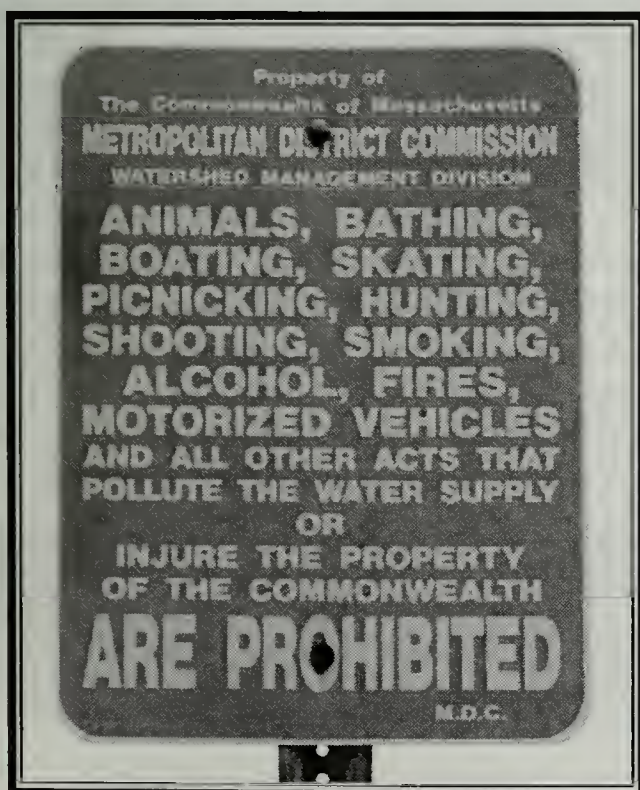
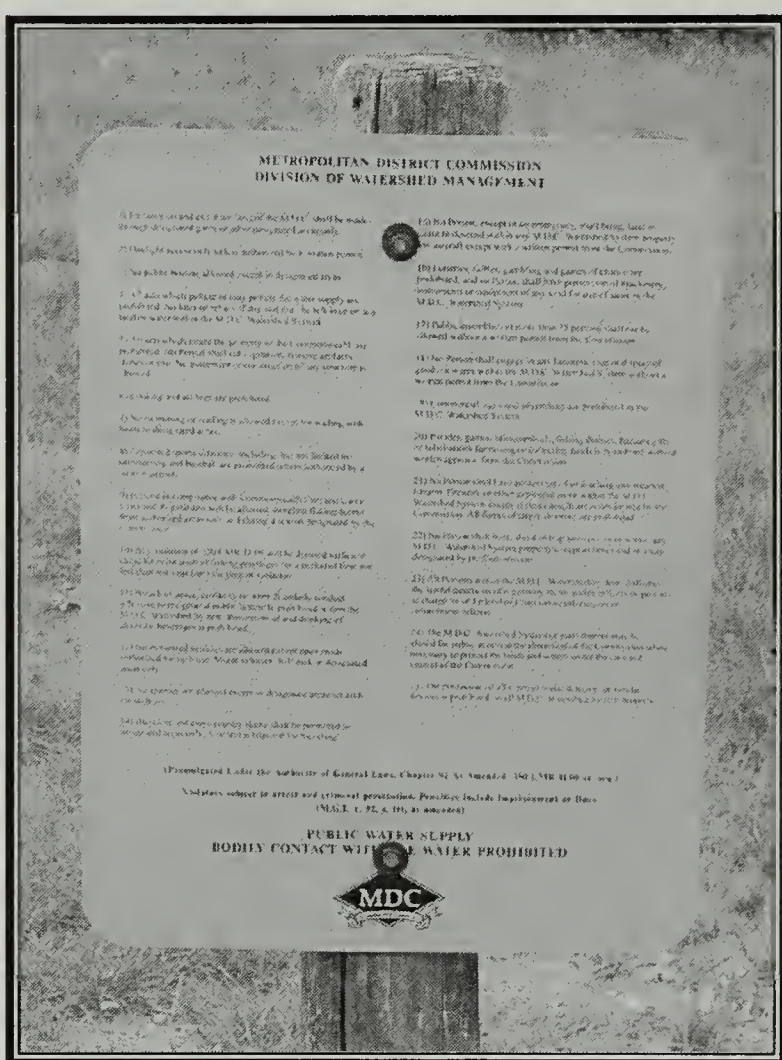
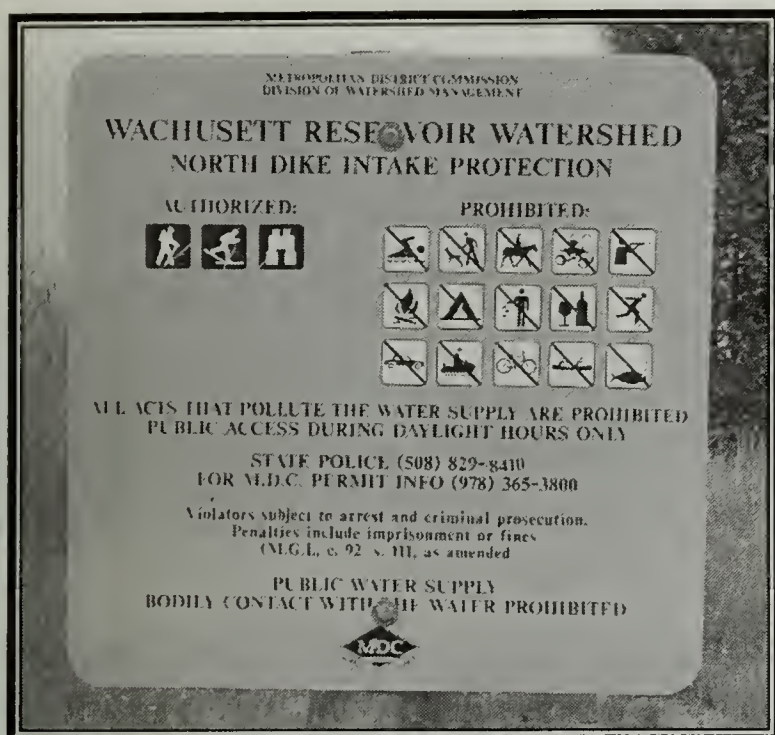


Table 2 (continued)

Allow limited access for off-road bicycling on MDC/DWM lands in Tributary Headwaters Zone.	Accomplished	Bicycling areas have been established on MDC/DWM properties. In addition, MDC/DWM has worked with Wachusett Greenways on portions of the Mass Central Rail Trail in the Wachusett Reservoir watershed.
<b>2. Provide Greater Enforcement</b>		
<b>Recommendation</b>	<b>Status</b>	<b>Comments</b>
Improve MDC/DWM training of State Police to target violations of watershed regulations.	Ongoing	Since the plan was written, coordination and communication has expanded with the Holden barracks of the State Police. State police provide assistance to MDC/DWM rangers as needed. Informal training occurs regularly with State Police officers assigned to watershed patrols.
Create a Memorandum of Understanding (MOU) with local police to assist with enforcement of MDC rules and regulation on water supply lands.	Re-assessed	It was determined that a formal MOU is not necessary; and regular coordination and communication as now exists is fully adequate to deal with interagency issues that may arise.
Advocate legislative changes to existing law (M.G.L. Ch. 92, s. 11) that will decriminalize certain activities that would allow State Police and Watershed Rangers to issue tickets for common trespass activities of a non-criminal nature, such as dog walking and swimming.	Re-assessed	The current need for these legislative changes has diminished since the inception of the ranger program and expanded coordination with the State Police. The issue will continue to be monitored.
<b>3. Provide Sanitary Facilities</b>		
<b>Recommendation</b>	<b>Status</b>	<b>Comments</b>
Install portable toilets at three sites located around the reservoir where intensive and prolonged use occurs to reduce potential introduction of pathogens to the reservoir.	Accomplished	Location of the toilets will be re-assessed as well as feasibility of more permanent facilities. More information on this topic is provided in Chapters V and VI.
Require local towns to provide portable toilets at all sports fields that are leased from the MDC/DWM	In Progress	To date, this recommendation has not been implemented. It will be carried forward as a recommendation in this Update and will be addressed in any new leases issued by the Division.
Monitor public use of MDC/DWM sanitary facilities through visual documentation and water quality sampling to determine the effectiveness of public toilets in the reduction of fecal pathogens from authorized recreational use.	Ongoing	It is evident from visual surveys that visitors use the portable toilets. It has not been possible, however, to document any water quality improvements since their installation.

Table 2 (continued)

<b>4. Provide Sanitary Facilities</b>		
<b>Recommendation</b>	<b>Status</b>	<b>Comments</b>
Install portable toilets at three sites located around the reservoir where intensive and prolonged use occurs to reduce potential introduction of pathogens to the reservoir.	Accomplished	Location of the toilets will be re-assessed as well as feasibility of more permanent facilities. More information on this topic is provided in Chapters V and VI.
Require local towns to provide portable toilets at all sports fields that are leased from the MDC/DWM	In Progress	To date, this recommendation has not been implemented. It will be carried forward as a recommendation in this Update and will be addressed in any new leases issued by the Division.
Monitor public use of MDC/DWM sanitary facilities through visual documentation and water quality sampling to determine the effectiveness of public toilets in the reduction of fecal pathogens from authorized recreational use.	Ongoing	It is evident from visual surveys that visitors use the portable toilets. It has not been possible, however, to document any water quality improvements since their installation.
<b>5. Improve Signs</b>		
<b>Recommendation</b>	<b>Status</b>	<b>Comments</b>
Install new signs that incorporate international symbols to augment existing regulatory signs and clarify which activities are authorized and which are prohibited on MDC watershed lands.	Accomplished	See page 33 for examples.
Provide appropriate signs at all major entry points to MDC/DWM lands with a map of the reservoir to better orient and inform users of where access is authorized for passive recreational use.	Accomplished	Signs were made and posted. Maps have been made but not yet widely distributed. The need to update and revise maps is discussed in Chapters V and VI.
Develop interpretive signs for installation at key locations within the watershed to increase use awareness of watershed protection priorities.	Ongoing	Kiosks have been constructed and installed in four key locations for use in public education. Numerous bulletin boards have also been installed at minor access points to disseminate information. The additional use of interpretive signs at other points in the watershed is discussed in Chapters V and VI.
<b>6. Educational Programs</b>		
<b>Recommendation</b>	<b>Status</b>	<b>Comments</b>
Establish a fully operational field education and surveillance program to increase public awareness of the importance of the watershed's role in providing high quality drinking water to local and regional water supply systems.	Accomplished	Wachusett Ranger Patrols have been established. The Rangers provide ongoing contact with the public providing education and surveillance.



Examples of MDC/DWM signs in the Wachusett Reservoir watershed

Table 2 (continued)

Work with watershed communities to increase educational programs for areas that are heavily used for recreation, such as the North Dike and the Old Stone Church, including the establishment of a Greenway Trust organization.	Accomplished	A highly successful working relationship has been developed with the Wachusett Greenways, a team of volunteers working to expand trails and open spaces linking Wachusett area communities. MDC/DWM has assisted with work on the Mass Central Rail Trail, establishing a three mile link on MDC/DWM land in West Boylston and Holden.
Create an MDC/DWM resource center so that education materials can be made available to local town officials, teachers, and organizations.	Ongoing	MDC Division staff has begun work on a Resource Center, which will be located in John Augustus Hall.
Commit to utilizing Stillwater Farm as an educational resource for watershed protection.	Accomplished	House renovation will be completed in 2003, at which time it can be used as an interpretive facility.
<b>7. Community Participation</b>		
<b>Recommendation</b>	<b>Status</b>	<b>Comments</b>
Continue to work closely with the Wachusett Reservoir Watershed Citizens Advisory Committee (WAC) to implement workable solutions for immediate and long-term protection of MDC water supply resources.	Ongoing	The WAC was meeting on a regular basis during and after the production of the 1996 Plan. Public interest in this group, however, subsequently waned. This inattention could have negative connotations, but the lack of interest may also reflect general satisfaction with current policies. The production of this Plan Update provides an opportunity to reconvene the WAC.
Collaborate with watershed communities and other environmental or recreational groups to develop educational programs for local schools.	Ongoing	MDC/DWM Wachusett staff participated in WREEN (Wachusett Regional Environmental Educators Network) until its demise in 2002. MDC/DWM Rangers coordinate educational efforts, and Wachusett staff participate in educational activities. Division staff administer the state-wide ProjectWET (Water Education for Teachers) program as well as provide leadership for the student science competition Envirothon.
Organize watershed "clean up" events on a regular basis with local communities and other environmental or recreational interest groups to instill public stewardship of watershed resources.	Ongoing	Several clean-up days have been conducted, often as part of Earth Day celebrations. The Division's Technical Assistance program provided funding for regional Household Hazardous Materials collections. MDC/DWM will continue to sponsor clean-ups in the watershed, and will look for opportunities to expand these efforts.
Work with local and regional greenway committees to evaluate appropriate trail connections to land within the watershed that are remote to Wachusett Reservoir.	Ongoing	Wachusett Superintendent, Rangers and other staff work with Wachusett Greenways and other groups on regional trail issues.

Table 2 (continued)

8. Improve Site Maintenance		
Recommendation	Status	Comments
Use best management practices (BMPs) to stabilize and restore MDC/DWM trails and shoreline areas where intensive use occurs.	Ongoing	Work occurs on an as-needed basis to restore degraded areas.
Employ sustainable land management practices to enhance filtration capacity of watershed buffers and to reduce the need for landscape maintenance activities.	Ongoing	Maintenance activities have been updated to leave Reservoir buffers in a more natural state.

## C. Overview of Current Public Access Issues

Implementation of the recommendations in the 1996 Plan, as detailed in Section B above, has resulted in better protection from impacts of public access. Identifying distinct Management Zones has provided a successful structure for managing public access; in particular, establishing the Intake Protection Zone restricted immediate access to the most critical areas of the water system. Other measures promoted by the 1996 Plan that were successfully implemented include:

- ♣ Developing the Watershed Rangers into an effective and consistent official presence to visitors. The Watershed Rangers ensure that MDC regulations are followed, and they have also evolved into an important element for handling emerging security concerns.
- ♣ Significantly improving communication and cooperation with state and local police, resulting in better prevention and protection.
- ♣ Installing portable toilets at three locations.
- ♣ Placing improved signs at key points on MDC properties throughout the watershed.
- ♣ Increasing education and outreach efforts.

There are, however, ongoing issues and areas of general concern where improvements can be made. These include:

- ♣ **Structural and Access Controls:** Gates and other barriers need to be continually assessed. Parking problems continue along roads, especially at popular gates and sites.
- ♣ **Signs:** There are some areas where signs, despite MDC/DWM improvements, are still confusing or other indirect communication problems persist.
- ♣ **Maps:** Improved maps would better guide public access to the designated areas of the watershed.
- ♣ **Enforcement:** The effectiveness of the ranger program has been hindered at times due to budget and staff limitations. Dog walking, horseback riding, ATV use and snowmobiling continue to occur on MDC/DWM lands, despite extensive education and surveillance efforts of MDC/DWM Rangers.
- ♣ **Education:** While significant achievements were accomplished, budget and staff have not been adequate to provide the programs envisioned in the 1996 Plan.
- ♣ **Sanitation:** The location of portable toilets needs to be re-evaluated, different/additional sites considered, and the feasibility of constructing more permanent facilities evaluated. Trash dumping remains problematic.

- **Encroachments:** The increase in MDC/DWM property has made monitoring for encroachments by abutters an on-going need (this concern is also addressed in the Wachusett Reservoir Watershed Land Management Plan: 2001-2010).

## D. Current Issues by Management Zone

This section provides a status report and policy assessment for each of the management zones prescribed in the 1996 Plan. The following discussion also makes frequent reference to numbered gates. The MDC/DWM has established numbered gates to access roads on MDC/DWM lands surrounding the reservoir. These numbered gates provide a useful reference for describing access entry points to MDC/DWM-owned land for both monitoring and public safety purposes (see **Figure 6**). The gates are numbered sequentially, in a clockwise order, around the reservoir. Gate 1 is located near the entrance to the Cosgrove Intake; Gates 2 - 16 are located off Route 70, Gates 17 - 26 are located off Route 140, and Gates 27 - 42 are located off Route 110.

### 1. Intake Protection Zone

**1996 Public Access Policy:** No Public Access.

**Current Status:** The boundary of the Intake Protection Zone is fenced and posted with MDC/DWM signs (see **Figure 7**). No Access signs are posted at the MDC/DWM Gates along Route 70, which are north of the Fishing Limit (Gates 1 - 5). As recommended in the 1996 Plan, a four foot fence was installed along the North Dike, to prevent shoreline access. The remaining portion of the North Dike is open to the public, and managed as Off - Watershed Land (see **section 4, below**). The North Dike is a very popular area and receives heavy use. The most frequently used access points are Gate 39 and Gate 40.

MDC/DWM lands in the vicinity of the North Dike and South Dike were divided into two management zones in the 1996 Plan. The zones were based, in part, on the hydrology of the watershed. Thus, access restrictions for some of the popular areas at the northern end of the reservoir (such as areas below the North Dike and the Wachusett Dam, and the Wachusett Dam Promontory) are discussed in **Section 4 Off-Watershed Lands**.

**1996 Policy Assessment:** Changes implemented since the 1996 Plan have provided greater protection around the Cosgrove water supply intake. The No-Access Policy works well, greatly reducing the concerns of improper public access in this zone. Nevertheless, trespassing is an ongoing problem, with the most frequent violations on the Route 70 side of the reservoir, and often around Gate 5, which is the boundary of the “no-access” zone. The Watershed Rangers regularly patrol these areas, reminding visitors that there is no public access in this area. State Police enforcement is used when necessary to maintain the integrity of this zone.

Since the events of September 11, 2001 there has been a need for additional security throughout the watershed, particularly in the area around the intake. MDC has responded by providing additional Watershed Ranger patrols and increased awareness and surveillance by all



Figure 6



# INTAKE PROTECTION ZONE

- Area A1
- Area A2
- Area B1 - Promenade Area
- Area B2
- Area C
- MDC Property outside the Intake Protection Zone
- Limit of Intake Protection Zone
- MDC Fireroads
- MDC Gates

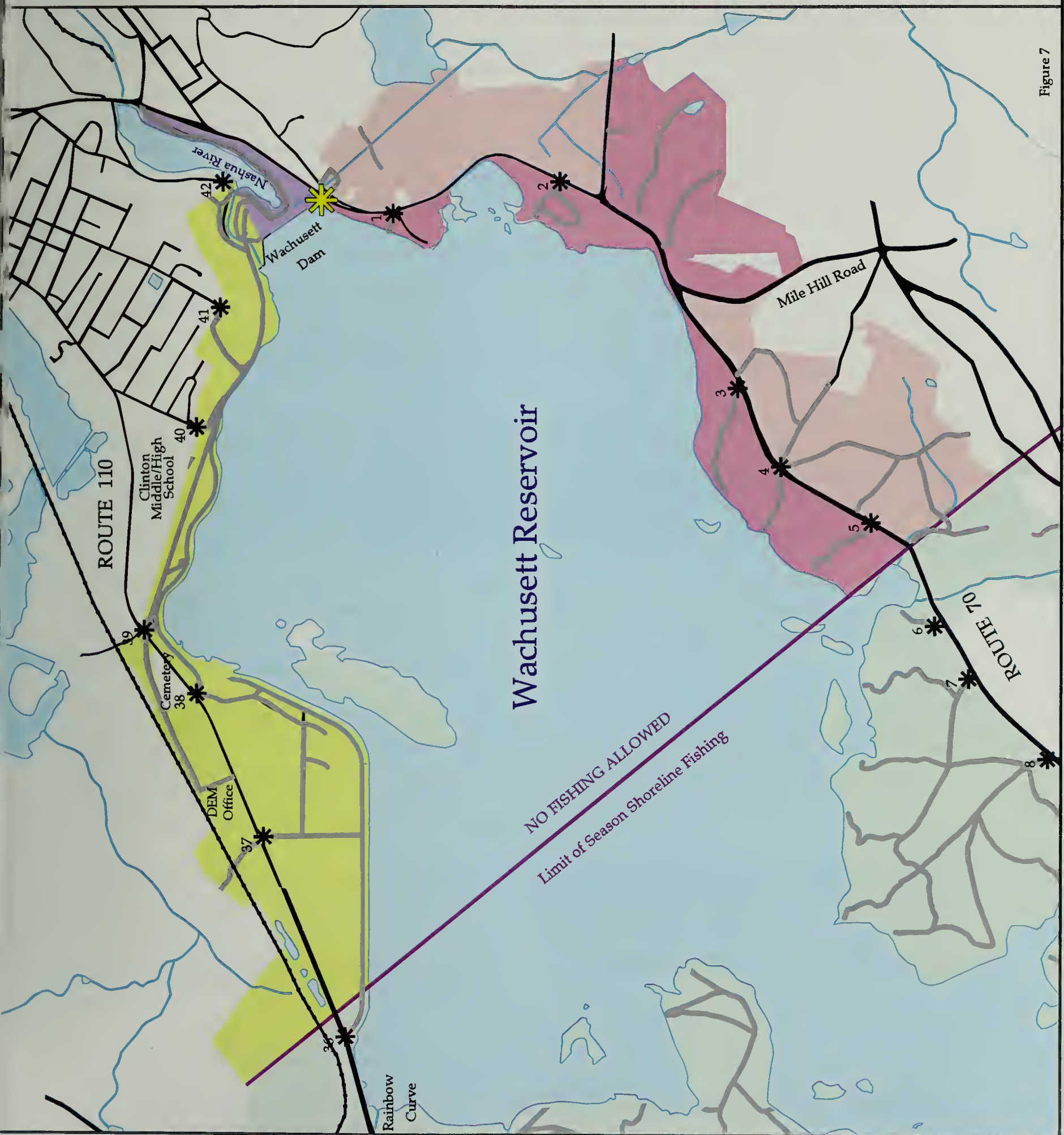


Figure 7



MDC/DWM Wachusett staff. Additional patrols by State Police and the presence of National Guard troops at the Cosgrove Intake building have further increased security of the water supply intake. Temporary barriers have been added to these areas.

## **2. Reservoir and Tributary Shorelines and West Waushacum Pond Protection Zone**

**1996 Public Access Policy:** Allowed uses include walking, hiking, seasonal shoreline fishing, and cross-country skiing. Year-round shore-line fishing is authorized at the Quinapoxet and Stillwater Rivers, upstream of Thomas Basin; fishing with waders allowed upstream of the MDC Dam at the Oakdale Power Station on the Quinapoxet River and upstream of the Stillwater River confluence with Waushacum Brook. Non-motorized boating and fishing are authorized at the West Waushacum Pond. Canoeing is allowed on the Stillwater River upstream of the take-out at the steel bridge at Muddy Pond Rd. and on the Quinapoxet River upstream of the turn-off on River Rd. between Canada Mills and the Oakdale Power Station. No body contact with water (i.e., swimming, wading) is allowed in the zone except for fishing with waders in the above mentioned areas. Access is authorized from dawn to dusk only.

**Current Status:** The Reservoir and Tributary Management Zone includes all MDC land around the reservoir that lies beyond the four-mile Intake Protection Zone, and other MDC land adjacent to the Thomas Basin and West Waushacum Pond (see **Figure 8**). While more activity is allowed in this zone than at the Intake Protection Zone, Division rules and regulations limit access and restrict the type of activities allowed to minimize public access impacts.

There are many popular sites in this management zone, such as Gate 35, Bob's Hot Dog Truck, the Old Stone Church, Mass. Fish and Wildlife West Boylston Headquarters, the Central Mass. Rail Trail, South Bay, Thomas Basin, and Stillwater Farm. Many of these sites experience parking problems, such as over-crowding onto the roadway and erosion. This is also a very popular area for biking, although off-road biking is not allowed in this management zone.

**1996 Policy Assessment:** Steel closure gates and fencing restrict access to much of the MDC/DWM lands in this management zone. Most access to lands further out from the reservoir in this zone is also through gates. Maintaining these gates is a top priority for the Division because they provide an effective barrier to illegal dumping.

The MDC/DWM has placed signs at these points of entry so that all visitors are educated regarding specific rules and regulations pertaining to each access point. Despite the fact that the restrictions are well posted, many visitors continue to ignore the rule that dogs are not allowed on MDC/DWM lands in this zone. Regular surveillance by Ranger staff is also required in warm weather to prevent swimming.

Visitors and people just passing through the area throw away large amounts of trash. Illegal dumping of construction debris and electronic equipment on MDC/DWM lands has increased significantly since the 1996 Plan was written. MDC/DWM does not have the resources to pick this trash up on a regular basis. The Division has been forced to close the more remote turnoffs from the public ways to combat this activity.

## **3. Tributary Headwaters Zone**

**1996 Public Access Policy:** All activities allowed in the Reservoir and Tributary Shorelines

Zone are allowed in this zone – walking, hiking, cross-country skiing. Year-round fishing is also allowed, and fishing with waders is authorized on the Quinapoxet and Stillwater Rivers upstream of Thomas Basin. Due to its distance from the Wachusett Reservoir, additional special use activities – off road bicycling, canoeing, and hunting – are allowed at designated areas in this zone.

**Current Status:** The Tributary Headwaters Zone is comprised of watershed lands that are distant from the reservoir and its nearby tributaries (see **Figure 9**).

**1996 Policy Assessment:** Two year pilot projects, as recommended by the 1996 Plan, were implemented for both hunting and bicycling in order to evaluate the impact of these activities on MDC/DWM lands and to determine if there were any adverse effects to water quality.

**Hunting:** Hunting has traditionally occurred on much of the private lands located in the Tributary Headwaters Zone. MDC/DWM has purchased several large tracts of land in this management zone over the last fifteen years. Many hunters felt that hunting should be allowed to continue on this land now in MDC ownership. A pilot hunting program was approved in 1996 for a two-year period, limited to MDC-owned lands in the Tributary Headwaters Zone.

This arrangement is consistent with policy established at Quabbin Reservoir, where hunting is allowed during all state hunting seasons on that watershed's "Off-Reservation" lands (the annual Deer Hunt provides the only hunting access to all other MDC/DWM lands in the Quabbin Reservoir watershed). In addition to requiring a valid Massachusetts hunting license, the pilot program established the requirement of an MDC Special Use permit to hunt on MDC/DWM lands.

The MDC/DWM found no significant impact to watershed resources during the two year trial period. The hunting program was made permanent in 1998. The MDC/DWM will continue to allow hunting in designated areas within the Tributary Headwaters Zone. A Special Permit, issued by the MDC/DWM will still be required to hunt on MDC/DWM lands. The hunting boundary will be changed to include all MDC/DWM owned lands west of Route I-190.

All other applicable state, local, and federal hunting rules and regulations apply. The Division will rely on state hunting regulations to define areas open to hunting in the Tributary Headwaters Zone. The Department of Fisheries and Wildlife regulations state that, "Discharge of any Firearm or release of any arrow upon or across any state or hard-surfaced highway, or within 150 feet of any such highway, or possession of a loaded firearm, discharge of a firearm or hunting on the land of another within 500 feet of any dwelling or building in use, except as authorized by the owner or occupant thereof." MDC/DWM believes that these rules will dictate to the hunter the locations that are appropriate for hunting. MDC/DWM will prepare an easy to read map to distribute to hunters with their Special Permits.

As part of updating the Access Plan, the MDC/DWM conducted a survey, written and mailed during the fall of 2002, to permitted hunters (see Appendix A). In summary, it was found that DWM lands are used by a large number of hunters on a regular basis. The data suggests that within the hunting community at-large, local hunters utilize DWM lands the most. Based on written comments, DWM land is highly valued. Hunters pursue a range of species on DWM lands, although certain species – deer, turkey, upland birds –

Wachusett Reservoir Watershed  
Reservoir and Tributary Shorelines and  
West Waushacum Pond Protection Zone



Figure 8



# Wachusett Reservoir Watershed

## Tributary Headwaters Protection Zone

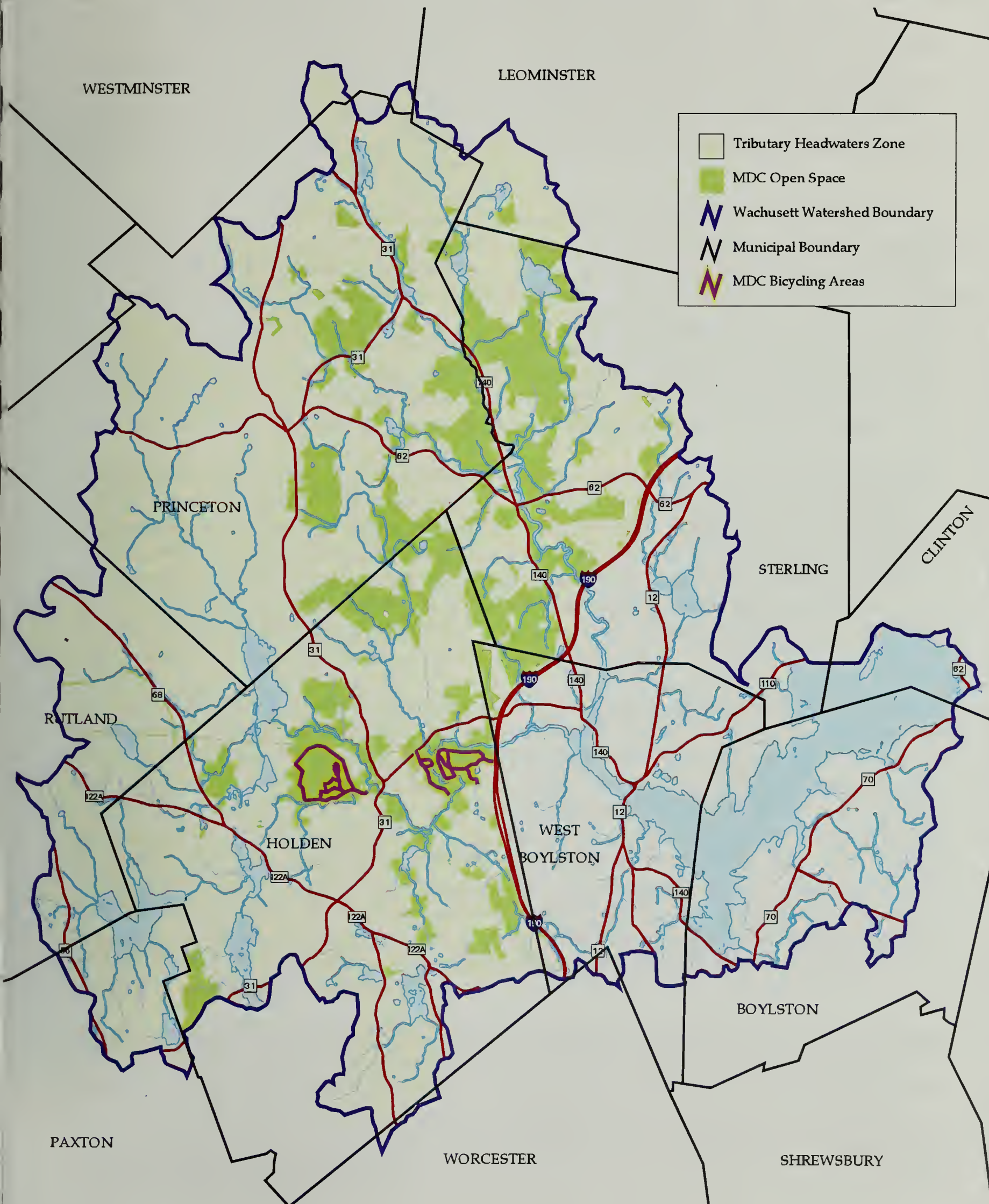
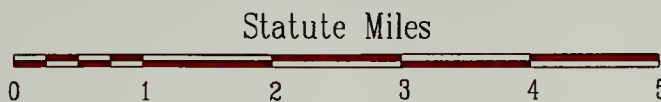


Figure 9



are the most popular. The survey showed that the average hunter spends relatively little time on DWM property during the course of a year. Further, few hunters hunt with a dog on DWM property.

The survey results are encouraging pertaining to hunter's encounter rate with various restricted activities. Hunters rarely or never encounter horses, ATVs or dirt bikes. Unfortunately, the encounter rate for trash is high. Although the survey results indicated that hunters felt the hunting map was at least somewhat helpful, written comments are contradictory. While the map may provide a very general overview of where hunting is allowed, it probably does not provide the level of detail needed by hunters to easily identify DWM parcels and access points. Locating DWM property in the field proved more difficult. While a large number of hunters indicated it was easy, a larger number of hunters found it somewhat difficult.

**Canoeing:** Canoeing has traditionally been allowed upstream of the Thomas Basin on the Quinapoxet and Stillwater Rivers. Canoes must be taken out of the Quinapoxet River at the turn-off on River Road that is between Canada Mills and the MDC dam and the MWRA Oakdale power station. Canoes on the Stillwater River must be taken out at the steel bridge on Muddy Pond Road in Sterling. The lower limits of canoeing are both within the Reservoir and Tributary Shoreline Zone. Special-use permits are not required for this activity because there is a relatively small number of users and the canoeing season is quite short. This activity also includes the use of kayaks, which have become a very popular alternative to canoes. The Division has monitored this activity since 1996, and has found no significant adverse impacts to water quality or MDC/DWM lands.

**Bicycling:** Bicycling, which includes biking along public roads and off-road bicycling, is a very popular activity on MDC/DWM properties. The 1996 Plan designated lands in the Tributary Headwaters zone for a two year pilot off-road bicycling program. Staff worked with bicycling enthusiasts to mark trails in two distinct areas. A map with off-road biking trails was produced and a permit program developed. A two year pilot program was instituted in 1998 to identify users, disseminate information regarding off-road biking on MDC/DWM owned lands, and monitor any impacts to watershed resources. The off-road bicycling pilot program ended in 2000, with no evidence of over-use leading to resource degradation.

In 1996, MDC/DWM was asked to investigate the recreational use of the abandoned railroad corridor along the Quinapoxet River. That investigation has lead to a Memorandum Of Agreement (MOA) with Wachusett Greenways Inc., a non-profit community-based organization that supports a regional network of non-motorized trails and open space corridors. A 3.2 mile long section of the Mass Central Rail Trail was constructed from Thomas Street in West Boylston to River Street in Holden. MDC/DWM then made forest road improvements from River Street, allowing biking to proceed for an additional 1 mile to Manning Street. Wachusett Greenways subsequently created 1.2 miles of trail on MDC/DWM lands from Manning Street to Route 31. Development of these trails has allowed MDC/DWM to direct activities to areas that are well controlled and limits impacts to the watershed's natural resources. Illegal bike activity on the forest roads adjacent to the main basin of the Reservoir has been significantly reduced since 1996, partly due to the availability of these other areas for biking.

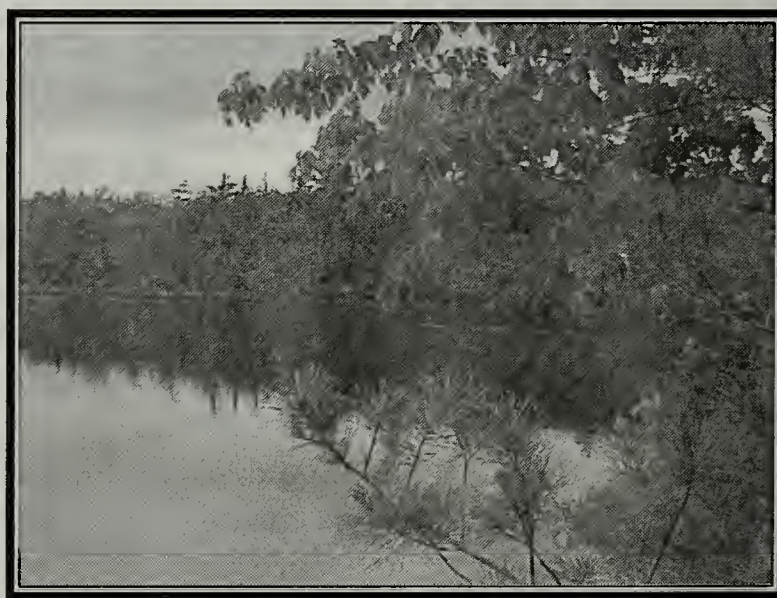
**Poutwater Pond:** The Poutwater Pond area was designated as a Nature Preserve in 1998, the first such designation under the state's Nature Preserve Act. The Nature Preserves program was created by a 1990 amendment to MGL Ch. 131, Section 10; under the act, state lands within the jurisdiction of the Executive Office of Environmental Affairs (EOEA) may be nominated to become a Nature Preserve. Nature Preserves are intended to serve in perpetuity as examples of the

state's native natural heritage. They are dedicated for the conservation of natural communities and native species of plants and animals, and for scientific research and education. Nature Preserves are recognized by statute as areas to be monitored and maintained in a natural condition; they should be used and managed in a manner consistent with protecting and perpetuating that condition.

MDC, the Mass. Division of Fisheries and Wildlife (MassWildlife), and the Town of Holden collectively protect an extensive area surrounding the bog and wetland system (including the drainage area for the bog and pond). The Preserve includes: 213 acres under the care and control of MDC, encompassing the pond, the majority of its watershed, and adjacent downstream wetland areas; 11 acres under the control of MassWildlife that contain an upland area that drains to the pond; the Town of Holden owns an additional 11 acres immediately adjacent to the Preserve boundary. The 1997 Poutwater Pond Nature Preserve Protection Plan contains a detailed inventory of the preserve's flora and fauna as well as the cultural history and resources of the area, a description of the public uses of this area, and recommendations for controlling access, serving public education needs, and protecting the natural resources of the preserve.

The main impacts to the site are from group visits to the bog (annual tours from local colleges and conservation organizations) and from a poorly conducted, private logging operation in the upland forest just outside of the Nature Preserve boundary. Group visits left a well-worn trail through a section of the floating mat. The trail has been restored and upgraded by the MDC with a boardwalk that minimizes impacts to the bog vegetation. The recent logging operation caused road erosion and left excessive logging debris in adjacent upland areas. There has been ongoing Off-Road Vehicle and Snowmobile use in the area, which is not allowed on MDC property. The Watershed Rangers continue to monitor the area for these illegal activities and work with the State Police to enforce MDC regulations.

The Nature Preserve regulations (321 CMR 11.06 and 11.07) provide the general framework for administering nature preserves. However, the law defers to the administering agency for some rules if they differ. Access hours are different for both MDC and MassWildlife lands in the Preserve: MDC allows entry from 1 hour before to 1 hour after sunset; access is allowed 24 hours/day on MassWildlife property. The Nature Preserve rule requiring a special permit for groups of 10 or more persons is more stringent than MDC policy for the Wachusett Reservoir watershed; MDC has agreed to enforce the more stringent regulation in the Preserve. Hunting and trapping is allowed by regulation in Nature Preserves unless prohibited by the managing agencies.



*Poutwater Pond*

Poutwater Pond is significant for the unique geologic, hydrologic, and botanical characteristics of the site. It is an excellent educational resource for local schools, ranging from elementary to the college level.

#### 4. Off-Watershed Lands

**1996 Public Access Policy:** Walking, bicycling (at Old Campground Rd. in Sterling and at the North Dike from Gates 39 - 40), fishing, cross-country skiing, and walking dogs with a leash below the dam are the limited uses allowed on these MDC lands that do not drain into Wachusett Reservoir watershed.

**Current Status:** The Off-Watershed Lands Zone is comprised of land owned by MDC that does not drain into Wachusett Reservoir. These are parcels located in Boylston (primarily to the east of Route 70), Sterling (chiefly in the vicinity of Old Campground Road), and MDC lands in Clinton (primarily below the North Dike and the Wachusett Dam). The 1996 Plan authorized bicycling at Old Campground Road, restricted to the existing roadway. The Off-Watershed Lands in Clinton require close surveillance by MDC/DWM Rangers and other staff, due to their proximity to the reservoir, dam and intake facilities.

**1996 Policy Assessment:** A fence, as called for in the 1996 Plan, was installed at the North Dike to prevent access to the shoreline. The land on the reservoir side of the fence is included in the Intake Protection Zone. All of the land north of the fence is included in the Off-Watershed Lands management zone. This area is accessed from Gates 36 - 41; it is very popular for walking and hiking.

Bicycling is allowed along an old rail bed from Gates 39 - 40. Common use, however, is for people – frequently families with children – to continue all the way to the bottom of the spillway. While current policy does not allow biking beyond Gate 40, and it is enforced by the Watershed Rangers, there have been no adverse impacts identified from biking on the rail bed beyond Gate 40.

The Off-Watershed Management Zone also includes the Promenade at the top of the dam, and the fountain and river areas at the base of the dam. Visitors and local residents traditionally have enjoyed visiting these scenic vistas. MDC Wachusett Administrative and Engineering Sections were historically stationed in the building at the base of the dam. Vehicular access to areas at the base of the dam was restricted in October of 1999 when MDC/DWM personnel were moved to the Administrative trailers on Wilson Street. This move was made to accommodate a three-year MWRA construction project on dam appurtenances and the need to modernize the administrative building.

Following September 11, concerns about potential terrorist attacks on the Wachusett Dam resulted in more stringent security measures. All public access is currently restricted in these areas. Only MDC, MWRA and other authorized personnel are allowed access at the Cosgrove intake. Access to the area below the Dam remains closed to the general public.

The 1996 Plan discussed the possibility of establishing a Visitors Center within the Off-Watershed Zone at the northern end of the Reservoir. Many people visit this portion of the reservoir, and a Visitor's Center would provide opportunities to educate the public about the reservoir, the Division's rules and regulation, watershed protection, and general environmental protection issues. Two sites considered for a Visitor's Center were the former MDC Police Station and the Wachusett Dam. The current budget situation does not support efforts to establish a Visitors' Center in this management zone.

There has been some public confusion generated by the demarcation of “Off-Watershed” lands within the general vicinity of the Intake Protection Zone. Although these lands do not drain to the reservoir, they are some of the most visible and visited MDC/DWM properties.

## E. New Policies

The MDC/DWM public access policies and programs effectively balance the protection of the Wachusett Reservoir with the desire of residents to enjoy MDC resources. This Plan Update generally maintains the pre-existing restrictions and policies for recreation.

There are two modifications to the management zone designations. One alteration is the establishment of I-190 as the boundary between the Tributary Headwaters Zone and the Reservoir and Tributary Shorelines and West Waushacum Pond Zone. The southern section of this border as defined in the 1996 Plan caused some confusion because it did not follow an easily identified boundary. Utilizing this significant landmark will simplify implementation of the MDC/DWM Public Access policies. The other change is the integration of all lands designated in the 1996 Plan as “Off-Watershed Lands” into the Intake Protection Zone. The elimination of the “Off-Watershed Land” zone does not alter the public access rules for this area (see **Figure 6**). MDC/DWM will continue to work to educate users in order to improve compliance with our regulations.

This section presents the 2003 Public Access Policies and a discussion of implementation issues in each protection zone. Table 3 compares the policies proposed in this update to the 1996 policies. Table 4 describes the new management area designations within the Intake Protection Zone. Table 5 is a summary of the updated MDC/DWM Public Access Policies for the Wachusett Reservoir watershed. Implementation activities are discussed in Section VI.

### 1. Intake Protection Zone

**2003 Public Access Policy: Integrate “Off-Watershed Land” Zone.** No Public Access in area solely considered “Intake Protection Zone” in 1996 Plan (New Area A1). All former “Off-Watershed Land” areas maintain public access policies established in 1996 Plan, except the removal of “No Trespassing” requirements from land northeast of Route 70, opposite Gates 1 and 2 (see **Table 4 and Figure 7**).

**Implementation Issues:** Since the events of September 11, 2001 there is an overall need for additional security, specifically in the area around the Cosgrove Intake. MDC/DWM will determine if there are areas where more aesthetically pleasing permanent barriers should be installed.

In the areas surrounding the Wachusett Dam, additional structural controls are needed to improve security and to discourage access when necessary. These would include better signs at the entrance to the Dam and improved barriers and better fencing at the Promenade. MDC/DWM will evaluate better access controls at the guardrails along Route 70, downhill of the promenade.

**Table 3**  
**Changes Between MDC/DWM Public Access Policy**  
**in the Wachusett Reservoir Watershed**  
**1996 vs. 2003**

<b>ACTIVITY</b>	<b>1996 POLICY</b>	<b>2003 Policy</b>
Shoreline Fishing	Allowed seasonally in the Reservoir & Tributary Shoreline Zone; year round fishing allowed in Tributary Headwaters (with waders) and Off-Watershed Zones.	Integrate Off-Watershed Zone into Intake Protection Zone; no fishing allowed in Intake Protection Zone.
Hiking	Allowed in all areas except the Intake Protection Zone.	Expand to allow access to lands east of Gates 1 and 2 (Management Area A2).
Cross-Country Skiing	Allowed in all areas except the Intake Protection Zone.	Expand to Allow access to lands east of Gates 1 and 2 (Management Area A2).
Boating	Non-motorized boats allowed on Quinapoxet and Stillwater Rivers in the Tributary Headwaters Zone; non-motorized boats allowed on West Waushacum Pond.	No Change
Swimming	PROHIBITED	No Change
Bicycling	Pilot program allowed off-road bicycles, with MDC permit, in two areas within the Tributary Headwaters Zone.	No permit requirement for off-road biking in designated area; clarify policy to allow biking from Gate 39 to 42 (formerly Off-Watershed Zone).
Horseback Riding	PROHIBITED	No Change
Camping	PROHIBITED	No Change
Motorized Vehicles (ATVs, ORVs, Snowmobiles)	PROHIBITED	No Change
Hunting	Pilot program allowed hunting, with MDC permit, in specified areas within the Tributary Headwaters Zone.	Hunting allowed with MDC permit. Hunting area is entire Tributary Headwaters Zone (locations must still meet DWFELE regulations).
Dog Walking	Allowed below Wachusett Dam with leash or while hunting in Tributary Headwaters Zone.	No Change*

\* All access below the Wachusett Dam is temporarily restricted until completion of construction activities.

**Table 4**  
**Intake Protection Zone Management Areas**

<b>INTAKE PROTECTION ZONE</b>	<b>AUTHORIZED ACTIVITIES</b>
<b>AREA A</b> Clinton & Boylston	
1. Dam and Gates 1-5 – area on the west side of R. 70 & east side of Rt. 70 that is north of Mile Hill Rd. and south of Rt. 62.	No Public Access
2. Area on the east side of Rt. 70 that is south of Mile Hill Rd. or north of Rt. 62.	Walking/Hiking Cross-Country Skiing
<b>AREA B</b> Clinton	
1. Promenade – area abutting westerly side of Route 70 & easterly of the dam	Walking/Hiking <sup>+</sup>
2. Nashua River at River Road and Spillway – area located below the dam.	Walking/Hiking <sup>+</sup> Dogs with Leash <sup>+</sup> Cross-Country Skiing <sup>+</sup>
<b>AREA C</b> Sterling & Clinton	
1. Gates 36 to Spillway – area north of the Intake Protection Zone line located on both the east and west sides of Route 110, from Gates 36 - Spillway.	Walking/Hiking* Cross-Country Skiing* Bicycling (from Gate 39 to 42 (base of Spillway) only)

<sup>+</sup> While the activity is allowed by MDC policy, no public access is currently allowed in this area due to security reasons. These areas will be re-opened for this activity when conditions permit.

\* There is no shoreline access; activities are allowed uphill of fence.

The land designated as “Off-Watershed Land” in the 1996 Plan will now be considered part of the Intake Protection Zone. The Intake Protection Zone (see **Figure 7**) now consists of three distinct geographic areas: Area A is the dam itself and the land directly surrounding it to the south; Area B is the promenade to the east and the area directly below the dam; Area C is comprised of the lands to the west of the dam. All public access restrictions and allowed uses remain the same as the 1996 Plan except for two changes:

- ♣ Foot access is now allowed east of Gates 1 and 2 (Area A2)
- ♣ Bicycling will be allowed from Gates 39 - 42 (the base of the spillway).

These areas do not drain into the reservoir, and no impacts have been observed from these activities.

MDC will maintain the possibility of a Visitor’s Center in the Intake Protection Zone. Resources for this effort, however, are not currently available. Nevertheless, MDC/DWM will attempt not to take any actions that would preclude its development in an appropriate location, should funds become available in the future.

## 2. Reservoir and Tributary Shorelines and West Waushacum Pond

**2003 Public Access Policy: No Change.** Allowed uses include walking, hiking, seasonal shoreline fishing, and cross-country skiing. Year-round shore-line fishing is authorized at the Quinapoxet and Stillwater Rivers, upstream of Thomas Basin; fishing with waders allowed upstream of the MDC Dam at the Oakdale Power Station on the Quinapoxet River and upstream of the Stillwater River confluence with Waushacum Brook. Non-motorized boating and fishing are authorized at the West Waushacum Pond. Canoeing is allowed on the Stillwater River upstream of the take-out at the steel bridge at Muddy Pond Rd. and on the Quinapoxet River upstream of the turn-off on River Rd. between Canada Mills and the Oakdale Power Station. No body contact with water (i.e., swimming, wading) is allowed in the zone except for fishing with waders in the above mentioned areas. Access is authorized from dawn to dusk only.

### Implementation Issues:

**Gates:** Division staff will evaluate gates as they are currently set up, and identify areas where existing gates should be replaced with more secure pipe gates. Division staff will also develop a identification system for gates that currently are not numbered.



*Examples of MDC/DWM Gates in the Wachusett Reservoir Watershed*

**Enforcement:** Watershed Rangers will continue to enforce regulations against walking dogs and swimming. MDC/DWM will maintain cooperative efforts with local and state police on all enforcement issues, particularly illegal trash disposal.

The following are issues for particular sites within this zone:

**Old Stone Church:** This is one of the most popular sites within the Wachusett Reservoir watershed. It is a high priority for Ranger patrols, in order to continue educating visitors about our rules and regulations. Problems include disposal of trash, wading in the reservoir, and shoreline erosion.

**Bob's Hot Dogs:** Most people are surprised to learn that this very popular area is not under the control of the MDC/DWM. The parcel of land at the junction of Routes 140 and 12 is owned by Massachusetts Highway Department. The area becomes very congested at peak times, and there are concerns regarding pedestrian and vehicular safety due to all the activity at this site. There is no clear "right-of-way" at the intersection of Rt. 140/Beaman Street and Lancaster Street.

**Parking:** Parking at popular sites continues to present a problem in this management zone. Specific sites include Gate 25, Gate 28, Gate 35, the Rail Trail, and a number of sites along Route 140 (popular fishing access areas, Bob's Hot Dog, Stone Church).

**Illegal Dumping:** Dumping has occurred in the past in the River Road area of West Boylston and along Mill St in Holden. The potential for more dumping is a problem due to the remoteness of these areas and their relatively easy accessibility.

**Sani-cans:** The 1996 Plan recommended locating Sani-cans in three sites – Gate 19, Gate 28, and the Old Stone Church – all located in this management zone. The presence of these portable toilets has been beneficial. The facilities are used by visitors who would otherwise use improper sanitation methods if the portable toilets were not available. MDC/DWM Rangers have noted that the toilet at Gate 28, off Route 110 gets limited use.

**Stillwater Farm:** This site is being developed for educational use through a Memorandum of Agreement with the Friends of Wachusett. Once renovations are completed in 2003, the farm house will be used as an interpretive center.



*The house at Stillwater Farm  
(19<sup>th</sup> Century right; 21<sup>st</sup> Century  
above)*



**Rail Trail:** In the 1996 Plan, bicycling was prohibited on MDC/DWM lands within the Reservoir and Tributary Shoreline Zone. Since then, the MDC/DWM has worked with Wachusett Greenways to provide access on the Rail Trail. This is a very popular biking and hiking area. The trail is also used for cross country skiing and snowshoeing in the winter. MDC/DWM has a Memorandum of Agreement (MOA) with Wachusett Greenways for the development and maintenance of trails through MDC/DWM property in the watershed. The Superintendent is a member of the Wachusett Greenways Mass Central Rail Trail Task Force, which meets regularly to discuss trail development and issues.

**Waushacum Pond Zone:** There are no major issues in this area. Some trash disposal problems with users are occasionally an issue. Erosion issues exist along the shoreline near the old railroad bed that separates West Waushacum Pond and the Quag, due to foot traffic on the steep slopes. Rail Trail plans being developed with Wachusett Greenways will include work to install a new bridge. This work will also include improvements to the eroded slopes.

### 3. Tributary Headwaters Zone

**2003 Public Access Policy: Change boundary to follow Interstate 190; allow hunting in all areas that meet DFWELE regulations; no permit required for two off-road biking areas.**

The following policy remains the same as 1996: All activities allowed in the Reservoir and Tributary Shorelines Zone are allowed in this zone – walking, hiking, cross-country skiing. Year-round fishing is also allowed, and fishing with waders is authorized on the Quinapoxet and Stillwater Rivers upstream of Thomas Basin. Canoeing is allowed at designated areas in this zone.

#### **Implementation Issues:**

**Hunting:** The MDC/DWM will continue to allow hunting in designated areas within the Tributary Headwaters Zone. A Special Permit, issued by the MDC/DWM will still be required to hunt on MDC/DWM lands. The hunting boundary will be changed to include all MDC/DWM owned lands west of Route I-190.

All other applicable state, local, and federal hunting rules and regulations apply. The Division will rely on state hunting regulations to define areas open to hunting in the Tributary Headwaters Zone. The Department of Fisheries and Wildlife regulations state that, “Discharge of any Firearm or release of any arrow upon or across any state or hard-surfaced highway, or within 150 feet of any such highway, or possession of a loaded firearm, discharge of a firearm or hunting on the land of another within 500 feet of any dwelling or building in use, except as authorized by the owner or occupant thereof.” These rules will dictate to the hunter the locations that are appropriate for hunting on MDC/DWM property (the 2003 hunting rules are available on-line from the Department of Fisheries and Wildlife at [www.state.ma.us/dfwele/dfw/dfwpdf/Dfwab03.pdf](http://www.state.ma.us/dfwele/dfw/dfwpdf/Dfwab03.pdf)). MDC/DWM will prepare an easy to read map to distribute to hunters with their Special Permits.

**Canoeing:** The MDC will continue to monitor for any impacts from canoeing or kayaking activities. Signs are necessary to clearly mark the take-out area at the River Rd. turn-off on the Quinapoxet River between Canada Mills and the Oakdale Power Station.

**Bicycling:** The two locations used in the Pilot Program will now be designated as bicycling areas. Due to the minimal impact to the land during the pilot phase and the limited number of bicyclists, no permits will be required for use of the area. Easy to read maps identifying the trails and noting the rules and regulations will be made available at MDC/DWM facilities, information kiosks, and on the agency’s website.

MDC/DWM will pursue working with bicycling groups to evaluate and monitor the trails on a regular basis. Due to limited resources, MDC/DWM will work to have volunteers maintain trails. MDC/DWM will monitor these areas for any impacts, and will re-evaluate limiting trail availability if increased use leads to watershed degradation or the need for significant resources to provide maintenance.

**Poutwater Pond:** The MDC/DWM public access policies continue to support the objectives of the Poutwater Pond Nature Preserve:

- ♣ To protect the unique natural features included in this area as a representative of a significant habitat and natural community within the Commonwealth.
- ♣ To study the unique natural features and ecology of this area.
- ♣ To educate the public regarding these unique features, in a manner that limits public impacts to the site, and encourages an increased awareness and stewardship for the site.

Due to the changes to the hunting policy recommended above, hunting will be allowed in the Nature Preserve under the guidelines established by MassWildlife hunting regulations and with a MDC Special Permit.

MDC/DWM will continue to monitor use of the area by snowmobiles and work with State and Environmental Police to enforce the watershed regulations.

#### **4. Off-Watershed Lands**

**2003 Public Access Policy:** Eliminate this designation and integrate entire zone into the Intake Protection Zone (see **New Policies, section 1**).

## **F. Public Access and Security**

Since the terrorist events of September 11, 2001, a greater focus has been placed upon security of our precious water resources. While good watershed protection would dictate limiting public access in close proximity to the Intake Protection Zone, recent events have heightened awareness for such protection. The MDC's no access policy at the Intake Protection Zone is needed as an effective measure of watershed protection and appropriate security measure.

Beyond the established MDC Intake Protection Zone at the Wachusett Reservoir, there may be a call for limiting public access in other areas due to potential threats to the security of the water supply. This may involve temporary suspension of all public access to lands within close proximity to the Reservoir or expansion of areas with no public access. If and when this were to occur, MDC would clearly identify such areas in the field and use available media outlets to keep the public informed of any public access changes that may become necessary.

**Table 5**  
**MDC/DWM Public Access Policy Summary**  
**Wachusett Reservoir Watershed**

ACTIVITY	Intake Protection Zone					Reservoir & Tributary Shorelines; West Waushacum Pond Zone	Tributary Headwaters Zone
	A1	A2	B1 *	B2 *	C		
VEHICLE ACCESS							
Off Road Driving (ORVs, ATVs)	⊘	⊘	⊘	⊘	⊘	⊘	⊘
Snowmobiling	⊘	⊘	⊘	⊘	⊘	⊘	⊘
Bicycling	⊘	⊘	⊘	⊘	✓	⊘	✓
FOOT ACCESS							
Walking/Hiking	⊘	✓	✓	✓	✓	✓	✓
Dog Walking	⊘	⊘	⊘	✓	⊘	⊘	⊘ <sup>1</sup>
Cross-Country Skiing	⊘	✓	⊘	✓	✓	✓	✓
Shoreline Fishing	⊘	⊘	⊘	⊘	⊘	✓	✓
Fishing with Waders	⊘	⊘	⊘	⊘	⊘	✓ <sup>2</sup>	✓
Horseback Riding	⊘	⊘	⊘	⊘	⊘	⊘	⊘
Hunting	⊘	⊘	⊘	⊘	⊘	⊘	✓ <sup>3</sup>
WATER ACCESS							
Boating – non-motorized	⊘	⊘	⊘	⊘	⊘	✓ <sup>4</sup>	✓
Boating – motorized (including “jet skis”)	⊘	⊘	⊘	⊘	⊘	⊘	⊘
Swimming	⊘	⊘	⊘	⊘	⊘	⊘	⊘
Ice Skating/Ice Fishing	⊘	⊘	⊘	⊘	⊘	⊘	⊘
OTHER ACTIVITIES							
Camping	⊘	⊘	⊘	⊘	⊘	⊘	⊘
Picnicking	⊘	⊘	⊘	⊘	⊘	✓	✓
Fires & Cooking	⊘	⊘	⊘	⊘	⊘	⊘	⊘
Programs/Assemblies	⊘	⊘	⊘	⊘	⊘	✓ <sup>3</sup>	⊘
Trail Clearing/Trail Marking/Advertising	⊘	⊘	⊘	⊘	⊘	⊘	⊘
Collecting/Metal Detecting	⊘	⊘	⊘	⊘	⊘	⊘	⊘

✓ – Public access is allowed in designated areas only

⊘ – Activity prohibited

\* All access to this area is currently prohibited for security reasons. MDC will re-open this area for the allowed uses when conditions permit.

<sup>1</sup> Dogs allowed with hunting permit    <sup>2</sup> Upstream of the MDC Dam at Oakdale Power Station on the Quinapoxet River and upstream of the Stillwater River confluence with Waushacum Brook.    <sup>3</sup> MDC Special Permit required    <sup>4</sup> Canoes/Kayaks allowed at: West Waushacum Pond; on the Stillwater River upstream of the steel bridge at Muddy Pond Rd.; on the Quinapoxet River upstream of River Rd. turn-off between Canada Mills and Oakdale Power Station.

Public access is allowed in designated areas only. Any activity that injures or defaces the property of the Commonwealth is strictly prohibited. All alcoholic beverages are prohibited. Night access is prohibited on MDC land in the Wachusett Reservoir watershed. See 350 CMR 11.09(2) for complete list of regulations. For additional information, contact the Wachusett/Sudbury Watershed Ranger Station at (978) 365-3800 or go to [www.state.ma.us/mdc/pacc.htm](http://www.state.ma.us/mdc/pacc.htm). In an emergency, contact the Watershed Rangers or the Massachusetts State Police at (508) 829-8410.

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## V. Plan Implementation

The MDC/DWM staff will implement the policies, control measures, activities, and programs cited in this Plan beginning in 2004. Resource constraints will control the implementation schedule for many of the activities. In general, Plan implementation strategies will include the following steps:

- ♣ Maintaining, improving, and adding structural access controls and signs, as needed;
- ♣ Monitoring, enforcement, and corrective actions;
- ♣ Providing educational programs and opportunities to promote watershed protection;
- ♣ Partnering initiatives with local groups, town entities, State Police, state agencies, and others; and
- ♣ Conducting Plan evaluation and modification, as necessary.

### A. Structural and Access Controls

Structural and access controls are in place on much of the MDC/DWM lands in the Wachusett Reservoir watershed. These gates and barriers restrict access to sensitive locations and provide controlled points for public access. Improvements are needed, however, to further enhance these controls. Initial efforts will focus on improving access restrictions around the Wachusett Reservoir; similar work will subsequently be incorporated in areas that are more distant from the Reservoir. There are several ways that MDC/DWM will improve security on its property, including:

- ♣ Replacing existing gates and other barriers where vehicular access can be gained illegally;
- ♣ Installing a new lock system on MDC gates; and
- ♣ Instituting a numbering system for all gates outside the main Reservoir basin.

In addition to preventing improper access, the Division will further encourage appropriate access and enhance public safety by providing parking and entry points in the more heavily used areas. Establishing parking areas and entry points will provide the opportunity to distribute educational information while limiting inappropriate access points. Focused entry points will also allow staff to better control public access and monitor users at each location.

Entry points in heavily used areas have been identified for improvements or development. They are listed in order of priority in Table 6. These areas are intentionally located near public roadways so that they can be easily monitored by Watershed Rangers and police.

**Table 6: Structural and Access Controls Actions**

<b>Site</b>	<b>Action</b>
Route 110 near Campground Road (gate 30 area)	Construct small parking area and realign Gate 30 roadway
Route 12/140 near the Railroad Bridge (gate 25)	Construct small parking area at gate and move gate
Route 140 near MA Dept. of Fish & Wildlife (Gate 19)	Construct small parking area at gate and move gate
Route 70 near Cross Street	Construct small parking area at gate and move gate
River Rd. and Mill St.	Construct access barriers
Newell Hill Rd. Extension	Construct access barriers

## B. Signs

A great deal of effort was dedicated to improving signs in the Wachusett Reservoir watershed since publication of the existing Access Plan. Signs currently in place around the Wachusett Reservoir watershed use universal symbols to identify allowed and prohibited activities on MDC/DWM property (see p. 33 for examples). There are additional improvements needed to the signs within the Wachusett Reservoir watershed. Some new signs will be required to reflect changes in this plan. Signs will also be installed that encourage the use of sani-cans.

In addition to rules signs, there is also the need for increased user education. One way this will be accomplished is through additional bulletin boards or kiosks. These structures provide MDC a place to post notices, information about alternative recreation sites, and general public education material. These bulletin boards will be added at key entry points, in particular at new parking areas; other locations for bulletin boards will also be evaluated.



*Examples of MDC/DWM Bulletin Boards in the Wachusett Reservoir Watershed.*



## C. Mapping

There is an existing need for improved public access maps of the Division's properties in the Wachusett Reservoir watershed. Throughout the 1990s, the Division developed sophisticated GIS capabilities, which will allow for development of better maps for the public. Such maps will show existing hiking and/or bicycling trails, hunting areas, locations of parking facilities, and other major access points. Any map produced by the MDC/DWM will clearly demarcate the restricted areas on its property. A fishing map is in development with the assistance of a user's group. MDC/DWM will also develop and distribute a Bicycling Trail Map, including the entire Rail-Trail.

## D. Enforcement

Watershed Rangers are trained educators who work to identify violations and educate the public on watershed regulations (see **Appendix B**). While not always necessary, there are times when the rangers must rely on police to enforce these regulations. This cooperative system of education and police enforcement has worked effectively in the Wachusett Reservoir watershed. The relationship with the State Police continues to be cooperative and effective. The Holden Barracks has been willing to support the mission of the Division from the top officials to the troopers assigned on a daily basis. They are the primary enforcement officials for violations on the Division's properties. In addition, the Environmental Police provide rules enforcement for environmental regulations across the state including in the Wachusett Reservoir watershed. Local police have historically worked well with MDC/DWM on issues of mutual concern in the watershed communities. All of these relationships are critical to the enforcement of MDC/DWM rules and regulations. MDC will meet regularly with State, Environmental and local Police to ensure and enhance coordination on enforcement issues.

The general public can be an effective tool in identifying and reporting improper and illegal activities on MDC/DWM properties. While recognizing the importance of private citizens' watchful presence, the MDC encourages individuals to notify the appropriate authorities rather than attempting to resolve any rules infraction on their own. MDC/DWM has made contact numbers of MDC and the State Police available on signs and brochures for reporting suspicious activities. These have proven to be effective tools in identifying illegal or improper activities on MDC properties. MDC/DWM will continue to provide this contact information in appropriate public places.

## E. Public Education/Interpretive Services

Watershed protection is most effective when public access management is complemented by public education. Public education provides information not only on rules and regulations, but also a demonstration of why the rules are needed for resource protection. Successful resource protection education programs instill a feeling of stewardship in users and promote self-monitoring behaviors in user groups.

Public education can be divided into two major categories: direct and indirect contact. Printed information, usually through signs, bulletin boards, or pamphlets, is the stalwart of indirect contact (bulletin boards and kiosks are discussed in Section B, above).

Direct contact information can take many forms. Watershed Rangers speaking informally with users while patrolling MDC/DWM property is one of the Division's most effective forms of public education. These interactions allow staff to answer specific questions, identify improper activities, and immediately inform the visitor the reasons why any particular use is restricted. School programs allow MDC staff to speak directly with students in their school setting about proper use of the property and general resource protection issues. These programs also provide the opportunity to distribute printed information to students and their families. Other public programs include guided tours and hikes on MDC property focused on resource protection topics, and staff participation, through booths or displays promoting proper stewardship of the Commonwealth's lands and resources, at public events such as town fairs. Each of these direct contact processes is part of MDC's overall education strategy, as staff time and resources permit.

## **F. Sanitation**

MDC/DWM will evaluate moving existing sani-cans or providing additional sani-cans at sites that might receive more use. Potential sites include Gate 25, Gate 35/36, Steel Bridge, Gate 22, Gate 8, and Gate 14.

## **G. Encroachments**

The following is a list of the types of encroachments that have been discovered on MDC property:

- 🌿 Water and Soil Impairment
  - dumping of debris and hazardous materials
  - storage of hazardous materials
- 🌿 Forest and Land Destruction
  - cutting, removal and damage of trees and plants
  - disturbance or removal of soil and ground cover
  - paving or covering of soil and ground cover
  - grading or filling land
- 🌿 Construction
  - installation of fences
  - construction of sheds, walls, signs and buildings
- 🌿 Boundary Destruction
  - removal or destruction of stone and concrete bounds, iron pipes and witness trees

The MDC/DWM Natural Resources Section is responsible for resolving encroachments. Since 1989, 19 encroachments have been discovered and resolved. Most resolutions occur through a series of letters following field investigation. Rarely has court action been required.

In order to reduce the number of encroachments, it is recommended that all new land purchases be surveyed prior to purchase unless recently recorded survey plans for the land exist. Watershed Rangers will continue to monitor MDC lands for encroachments and make referrals to the Natural Resources Section for resolution.

## H. Specific Site Recommendations

### 1. Old Stone Church

MDC/DWM Watershed Rangers will continue their presence at this site. The Division will also continue to provide trash barrels (rather than Carry in/Carry out policy) and a Sani-can. Considerations will be made on construction of permanent toilet facilities for this area.



### 2. Bob's Hot Dogs

MDC/DWM will ask MHD to evaluate safety issues at the site and make any needed pedestrian or traffic safety improvements.

### 3. Rail Trail

MDC/DWM will continue to support the work of Wachusett Greenways where appropriate. MDC/DWM is willing to consider working relationships with similar trail groups where the mission supports MDC/DWM's overall goals. The Superintendent will continue to participate on the Mass Central Rail Trail Task Force. There are a number of issues that need to be addressed on an on-going basis including enforcement of MDC/DWM regulations on these trails, parking facilities at trailheads, and minor maintenance needs due to use, including erosion and access off of the trail.

### 4. Waushacum Ponds

MDC/DWM will work to educate users on proper trash disposal. Signs and informational materials, as well as ranger presence, will all aid in limiting trash impact. Clarification is needed on the allowed boating uses in this zone. Current policy refers to "car top boats only." This should be clarified to "boats up to 14 feet in length." No inflatable boats will be allowed. Boat motors are limited to electric motors only. The MDC/DWM is supporting Wachusett Greenways, who is improving the trail along the old rail bed from Gates Road to the Sterling Millworks (a portion of which is MDC/DWM property). The trail will be for pedestrian and bike travel only. Work on the trail will restore the bridge over the Quag and will restore some of the eroded areas leading to the shoreline.

## 5. Poutwater Pond

The MDC will work to limit the illegal ATV and snowmobile activity in this area through increased enforcement and barrier placement.

## I. Partnerships

The primary mission of the MDC Division of Watershed Management is the protection of the water supply. Public access, while allowed, is secondary to water supply and resource protection. Because the Division's resources are focused on watershed protection, partnering with other organizations is an important tool to gain appropriate public access to these properties, while limiting impact on the Division's staff and funding resources. Such partnerships have developed since the inception of the 1996 Plan.

The most notable example is the Division's partnership with Wachusett Greenways, Inc. (WG). WG is a non-profit organization, "working to expand a network of trails and open spaces linking our communities. We regularly meet to build and maintain trails, improve open spaces, and reach out to the six towns we serve to promote sustainable and environmentally-sensitive use of green spaces" (taken from WG webpage). The Division participates in the WG Rail Trail Task Force and has a Memorandum of Agreement with WG to promote appropriate use of trails on MDC properties. Benefits to the MDC/DWM include focusing recreational use to this well developed and maintained trail network and conserving the agency's limited staff time and funds by developing and maintaining the trails through volunteers, public grants and private fundraising. WG avidly supports the MDC's water quality protection goals and works to promote environmentally accepted use of the Commonwealth's resources.

The MDC/DWM will continue to foster such relationships when the activities and locations are in keeping with this Public Access Plan Update or future plans and policies of the Commission, and where the Division can be assured that proper administration is in place to provide development and maintenance in perpetuity.

## J. Open Space Coordination

### 1. Department of Environmental Management

The Department of Environmental Management (DEM) operates the state's parks and forests. There are two significant DEM facilities in the northern part of the Wachusett Reservoir watershed, Wachusett Mountain Reservation and Leominster State Forest. DEM has also published a strategic plan, Shaping Our Future: A Strategic Agenda for the Department of Environmental Management, which is available on-line at [www.state.ma.us/dem/docs/stratplan.pdf](http://www.state.ma.us/dem/docs/stratplan.pdf).

**Wachusett Mountain State Reservation:** The 3,000-acre Wachusett Mountain State Reservation contains a wealth of natural resources and provides many recreational opportunities. The Reservation's natural resources include the largest known area of Old Growth Forest east of the Connecticut River in Massachusetts, with trees dating over 350 years old. The Reservation offers 17 miles of hiking and walking trails, including 3.9 miles of the

Midstate Trail. Wachusett Mountain is part of an extensive greenway area, including Leominster State Forest, Massachusetts Audubon's Wachusett Meadow Wildlife Sanctuary and Minns Wildlife Sanctuary. The Visitor's Center at the summit is a short distance from the Wachusett Mountain Ski Area, the largest ski facility in eastern Massachusetts.

**Leominster State Forest:** Leominster State Forest is a 4,300-acre parcel of forested land, located in the five towns of Westminster, Princeton, Leominster, Fitchburg and Sterling in North Central Massachusetts. The forest offers recreational opportunities year round, ranging from mountain biking and swimming in the summer to cross country skiing and snowmobiling in the winter.

## **2. Department of Fisheries, Wildlife and Law Enforcement**

The Department of Fisheries, Wildlife and Law Enforcement (DFWELE) is the state agency responsible for managing and conserving the state's fisheries and wildlife, including rare and endangered species. The Division of Fisheries and Wildlife (MassWildlife) works to conserve and manage the Commonwealth's wildlife heritage by offering expertise and assistance, addressing issues involving wildlife and habitat, and ensuring that people understand and comply with laws designed to protect our populations of wild plants and animals.

MassWildlife holds 102 Wildlife Management Areas (WMA) and 13 wildlife sanctuaries across the state. All WMAs are open to hunting, fishing, trapping and other outdoor recreation activities; sanctuaries are more restrictive.

There are two significant MassWildlife properties in the Wachusett Reservoir Watershed, **Poutwater Pond WMA** and **Minn's Wildlife Sanctuary**. There is a description of Poutwater Pond Nature Preserve (comprised of MDC and MassWildlife lands) in Section IV. The 138 acre Minn's Wildlife Sanctuary in Princeton does not allow hunting; it does contain a trail that climbs to the top of Little Wachusett Mt. and connects to the MA Audubon Wachusett Meadow Sanctuary.

## **3. Nonprofit and Other Private Landowners**

**Massachusetts Audubon Society:** Massachusetts Audubon Society is the largest conservation organization in New England, protecting more than 29,000 acres of conservation land, conducting educational programs for children and adults, and advocating for sound environmental policies at the local, state, and federal levels. Mass Audubon maintains 41 wildlife sanctuaries that are open to the public. The Wachusett Meadow Wildlife Sanctuary provides eleven miles of trails over more than 1,000 acres at the base of Wachusett Mountain in Princeton.

**Land Trusts:** Land Trusts are local, independent nonprofit organizations that work with landowners who want to protect open land for conservation, recreation, and other public benefit. Land trusts may acquire land through donation or purchase, or hold conservation restrictions on private property. There are several active Land Trusts in the Wachusett Reservoir watershed, including: White Oak Land Conservation Society, North County Land

Trust, Princeton Land Trust, Sterling Land Trust, and West Boylston Land Trust. Some already own land, such as White Oak's 600 acres in Holden and Rutland, while others are still organizing their resources. Each Land Trust has its own access rules.

**Sportsmen's Clubs:** There are five Sportsmen's Clubs in the Wachusett Reservoir watershed: Norco, Nimrod, Eight Point, North County Fox 'n Coon, and Leominster. All are private organizations that provide their members a variety of outdoor recreation opportunities.

**Golf Courses:** There are four private golf courses in the Wachusett Reservoir watershed – Mt. Pleasant Country Club and Cyprian Keyes in Boylston, Holden Hills Country Club in Holden, and Wachusett Country Club in West Boylston. Use of the facilities is limited to members and member's guests.

**Chapter 61:** Provisions under MGL chs. 61, 61A and 61B provide significant tax benefits to local property owners willing to make long term commitments to (respectively) forestry, agriculture or recreation. An owner of ten contiguous acres of forested land managed under a 10 year forest management certified by the State may receive a 95% abatement on the land's property tax under ch. 61. An owner of at least five contiguous acres of land actively devoted to agricultural or horticultural use is eligible for reduced taxes under the ch. 61A provisions. Ch. 61B provides tax relief to owners of at least five contiguous acres of land that are maintained in a substantially natural, wild or open condition or maintained in a landscaped condition permitting the preservation of wildlife and natural resources or land used for certain recreational purposes that is open to the public or members of a non-profit organization.

In exchange for these tax benefits, the city or town in which the land is located is given the right to recover the abatements afforded the owner and an option to purchase the property should the land be sold or used for any purpose other than for forestry (ch. 61), agriculture (ch. 61A), or open space/recreational use (ch. 61B). Land designated under the Chapter 61 programs remains private property; any public access for recreation is solely at the discretion of the landowner.

**MDC Conservation Restrictions:** A conservation restriction (CR; also called a conservation easement) is a legal agreement property owners make to restrict the type and amount of development that may take place on their property. A property owner agrees to sell or donate limited rights to their property to a state or non-profit land conservation agency. The landowner remains the owner and retains all rights to ownership except those described in the conservation restriction. There are both conservation and monetary advantages to landowners who sell or donate CRs. The CR restricts development by either the landowners or the purchasing organization. In essence, landowners are paid not to develop their property. After the sale of a CR, the property is assessed at a lower value due to its development restrictions, which in turn can reduce the landowner's property taxes and estate taxes. If the CR is donated for conservation purposes, it may also generate an income tax deduction. Once all the legal processes are completed, land placed under the CR is privately owned open space protected from future development. (MDC, Downstream #7, 2002)

The MDC/DWM currently holds 30 CRs in the Wachusett Reservoir watershed, totaling 2,003 acres. Most CR owners are individuals, although the MDC has acquired CRs from sportsman's

clubs, golf courses, and municipalities.

The policies outlined in this Plan are solely for land owned by the MDC. The purchase of a Conservation Restriction by the MDC does not give the public any rights to access the property. ***Public access on MDC Conservation Restrictions is solely at the discretion of the landowner.***

#### 4. Watershed Communities

Each community within the Wachusett Reservoir watershed is responsible for the development, implementation and updating of their town's Open Space and Recreation Plan. The adoption of a local Open Space Plan is necessary for the town to be eligible to receive Self-Help funds from EOEА's Division of Conservation Services (DCS). In order to maintain eligibility for these funds, Open Space plans are required to be updated every five years. The following is the status of local Open Space planning, as of November, 2002, according to DCS:

Town	Open Space Plan Status	Town	Open Space Plan Status	Town	Open Space Plan Status
Boylston	Expired	Leominster	Valid until August 2005	Sterling	Valid until December 2007
Clinton	Valid until August 2005	Paxton	Expired; Update submitted June 2003	West Boylston	Valid until December 2007
Holden	Valid until December 2004	Princeton	Valid until August 2005	Worcester	Valid until July 2005

The Division's Technical Assistance program has helped fund the development of Sterling and Paxton's Open Space Plans. This program has also provided funding to the Boylston and West Boylston for work on their respective Master Plans, which include sections on Open Space and Recreation. MDC/DWM will continue to cooperate with each community in reviewing, implementing and revising their Open Space and Recreation plans.

#### 5. SCORP

EOEA's Division of Conservation Services is also responsible for the development of the Statewide Comprehensive Outdoor Recreation Plan (SCORP). This is a statewide plan that provides policy recommendations for the state as a whole, and suggests key issues at regional levels that should be incorporated into those regional plans. *SCORP 2000* identifies six major issues for all providers of outdoor recreation in the Commonwealth:

##### **Resource Protection, Stewardship, Restoration and Enhancement**

At the heart of both active and passive outdoor recreation is an enjoyment of natural resources: clean air, clean water, healthy wildlife, flourishing habitats and vegetation, and scenic vistas. Quality outdoor recreation experiences are dependent on the protection, sound stewardship, restoration and enhancement of these resources, and, in areas where intense urbanization has displaced the natural environment,

reclamation of vacant sites and creative greenway and playground development are needed.

### **Education and Information**

Education and information can and should be an integral part of any strategy to improve the quality of outdoor recreation experiences. Public information and education play a pivotal role in outdoor recreation and must be expanded and tailored to encompass a wide variety of age groups, learning abilities and special needs. Informing the public about recreation sites and opportunities, emphasizing the careful stewardship of natural resource areas, and communicating the health benefits provided by outdoor recreation, all help to ensure the public's long-term enjoyment of, and support for, outdoor recreation.

### **Partnerships**

In today's changing budgetary environment, solutions to all of these SCORP issues can only be realized through creative approaches to programming and protection of recreation resources. Partnership opportunities should be extended to as many partners as possible including both public and private organizations and individuals.

### **Funding**

Resolving most of these SCORP issues depends upon two additional factors: the creativity and vision of the people who devote their professional or personal time to improving and expanding outdoor recreation opportunities, and, equally important, funding. In both the public and private nonprofit sectors, local support for outdoor recreation is essential to ensuring sufficient government funding and charitable donations. Using information to demonstrate an improved quality of life provided by outdoor recreation opportunities or the economic value of public recreation sites to a community can be helpful in broadening and solidifying financial and political support for outdoor recreation.

### **Access**

Outdoor recreation opportunities need to be accessible to all residents regardless of race, color, physical or mental challenges, place of residence, or age. Barriers to use of outdoor resources for recreation and relaxation, including lack of public transportation, physical impediments, and inappropriate or out-dated infrastructure, are all issues that need to be addressed in developing or improving outdoor recreation sites.

### **Maintenance**

To accommodate public need, recreation sites, trails, facilities, beaches, and playgrounds must be well maintained and appropriately staffed on a regular, continuous basis. Failure to do so, even for short-term reasons, can have long-term implications, decrease public safety and support, and adversely impact public recreation experiences. Commitment by the federal, state, and local governments to maintenance of outdoor recreation areas is critical, but creative ways to ensure proper

maintenance levels must also be explored, including adopt-a-trail, adopt-a-park, and other public-private partnerships. (EOEA, 2000)

MDC/DWM recognizes these common issues and has integrated them, where appropriate, into the Wachusett Reservoir Watershed Public Access Plan Update. MDC/DWM's goals and implementation priorities in the Wachusett Reservoir watershed, however, are based on its mission to protect this drinking water supply resource from public access impacts.

## K. Monitoring/Program Evaluation

This Public Access Plan Update outlines policy changes in public access management on MDC lands and waters in Wachusett Reservoir watershed. It is important that the Division monitor and evaluate these policies. Legislation requires the Division to update its watershed protection plans on a regular basis (5 year cycles). However, on-going monitoring and evaluation of MDC/DWM access policies should occur in order to ensure a successful watershed protection program.

MDC will maintain a regular monitoring program for its forest roads, access points and reservoir shorelines. This is accomplished primarily through Watershed Ranger patrols and Environmental Assessment activities performed by MDC/DWM Environmental Quality staff. These programs will help identify impacts from public access, particularly illegal dumping and erosion from overuse. MDC will continue to work with volunteers and user groups to assist in such evaluations.

As part of the evaluation of the plan it is important to gain public and user input about the effectiveness of the Plan activities. MDC will work to revive the Wachusett Advisory Committee. Its mission as a forum to review and provide input to the MDC on all of its water protection programs will be valuable to the implementation of this plan. As resources permit, MDC will provide a yearly review of the Plan with a brief report, and, if necessary, a public meeting to gather input on implementation of the plan.

**Table 7**  
**Wachusett Reservoir Watershed Public Access Plan Update Implementation Summary**

Issue	Implementation Objectives
<b>Structural and Access Controls</b>	<ol style="list-style-type: none"> <li>1. Replace gates and other barriers where vehicular access can be gained illegally.</li> <li>2. Install a new lock system on gates.</li> <li>3. Institute a numbering system for all gates outside the main Reservoir basin.</li> <li>4. Improve entry points (gates and/or parking):               <ol style="list-style-type: none"> <li>a. Route 110 near Campground Road (gate 30 area).</li> <li>b. Route 12/140 near the Railroad Bridge (gate 25).</li> <li>c. Route 140 near MA Dept. of Fish &amp; Wildlife (Gate 19).</li> <li>d. Route 70 near Cross Street.</li> </ol> </li> </ol>
<b>Signs</b>	<ol style="list-style-type: none"> <li>1. Install new signs where needed with updated policies, universal symbols, and encourage use of sani-cans.</li> <li>2. Install kiosks or bulletin boards at major entry points.</li> <li>3. Install additional kiosks at other parking areas, as resources permit.</li> </ol>
<b>Mapping</b>	<ol style="list-style-type: none"> <li>1. Develop and distribute Public Access Map(s) that show locations for hiking, bicycling, hunting and parking.</li> <li>2. Work with outside interests to produce and distribute a fishing map.</li> </ol>

Issue	Implementation Objectives
<b>Enforcement</b>	<ol style="list-style-type: none"> <li>1. Utilize Wachusett Reservoir Watershed Ranger Staff for patrols.</li> <li>2. Meet regularly with State Police, Environmental Police and local Police to ensure and enhance coordination on enforcement issues.</li> <li>3. Ensure that contact numbers of MDC and the State Police are printed on signs and brochures.</li> </ol>
<b>Sanitation</b>	<ol style="list-style-type: none"> <li>1. Evaluate moving existing toilets or providing additional toilets at sites that might receive more use.</li> <li>2. Prepare feasibility study of the potential use of permanent facilities in selected areas.</li> </ol>
<b>Encroachments</b>	<ol style="list-style-type: none"> <li>1. Monitor MDC property for encroachments.</li> <li>2. Coordinate with Natural Resources Section for encroachment resolution.</li> </ol>
<b>Specific Site Recommendations</b>	<ol style="list-style-type: none"> <li>1. Old Stone Church: <ol style="list-style-type: none"> <li>a. Continue presence of Rangers.</li> <li>b. Continue to provide Trash Barrels.</li> <li>c. Continue to provide Sani-can.</li> <li>d. Consider providing more permanent toilet facilities.</li> </ol> </li> <li>2. Bob's Hot Dogs: Request MHD to evaluate safety issues at the site and make any needed pedestrian or traffic safety improvements.</li> <li>3. Rail Trail: <ol style="list-style-type: none"> <li>a. Continue to support the work of Wachusett Greenways where appropriate.</li> <li>b. Continue participation on the Mass Central Rail Trail Task Force.</li> <li>c. Enter into working relationships with similar trail groups where the mission supports MDC/DWM's overall goals.</li> </ol> </li> <li>4. Waushacum Ponds <ol style="list-style-type: none"> <li>a. Educate users on proper trash disposal and allowed boating uses through Signs and informational materials.</li> <li>b. Support Wachusett Greenways in improving the trail along the old rail bed from Gates Road to the Sterling Millworks, including restoration of pedestrian bridge shoreline erosion.</li> </ol> </li> <li>5. Poutwater Pond: Limit the illegal ATV and snowmobile activity through increased enforcement and barrier placement.</li> <li>6. Quinapoxet River: Erect signs to clearly define boat take-out at River Rd. turn-off.</li> </ol>
<b>Public Education/ Interpretive Services</b>	<ol style="list-style-type: none"> <li>1. Provide indirect contact with public via: <ol style="list-style-type: none"> <li>a. Signs.</li> <li>b. Kiosks/Bulletin Boards.</li> <li>c. Pamphlets.</li> <li>d. Maps (see Mapping).</li> <li>e. Website.</li> </ol> </li> <li>2. Provide direct contact with public via: <ol style="list-style-type: none"> <li>a. Watershed Ranger Patrols.</li> <li>b. Guided Hikes and Tours.</li> <li>c. School Programs.</li> <li>d. Public Events.</li> </ol> </li> </ol>
<b>Partnerships</b>	<ol style="list-style-type: none"> <li>1. Foster partnerships with local entities to develop and maintain facilities on MDC land in keeping with MDC/DWM policies and regulations. <ol style="list-style-type: none"> <li>a. Wachusett Greenways – Rail Trail.</li> <li>b. Stewardship programs.</li> </ol> </li> </ol>
<b>Open Space Coordination</b>	<ol style="list-style-type: none"> <li>1. Maintain communication and coordinate when possible with other owners of open space in the watershed, including: DEM, DFWLE, Non-profit and other private landowners, and watershed communities.</li> <li>2. Continue to integrate common issues raised in the Statewide Comprehensive Outdoor Recreation Plan.</li> </ol>
<b>Monitoring/Program Evaluation</b>	<ol style="list-style-type: none"> <li>1. Maintain a regular monitoring program for MDC/DWM forest roads, access points and reservoir shorelines.</li> <li>2. Revive the Wachusett Advisory Committee as a forum to review and provide input to the MDC on all of its water protection programs in the watershed.</li> <li>3. Provide a yearly review of the plan and, if necessary, a public meeting to gather input on implementation of the plan.</li> </ol>

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## Appendix A: Hunter Survey

### INTRODUCTION

Historically, Metropolitan District Commission – Division of Watershed Management (DWM) lands within the Wachusett watershed were off-limits to hunting. In 1996, the DWM initiated a pilot program that allowed restricted hunting by permit only during a 2-year trial period. In 1998, following the initial 2-year trial, the DWM formalized its hunting program. Currently, hunting is allowed on portions of DWM lands (see **Figure 9** in main body of text). Hunters are required to obtain a free hunting permit and are required to adhere to all DWM rules and regulations as well as state wildlife laws. The hunting permits were initially valid for 2 years, but were recently extended to 5 years.

The DWM's Wachusett watershed public access plan was reviewed and updated in the fall of 2002. As part of that revision, the DWM hunting program was reviewed. In order to gain a more clear understanding of how the public was utilizing DWM lands for hunting, a survey was written and mailed during the fall of 2002 to permitted hunters. A copy of the survey is attached (Hunter Survey Appendix 1).

### SURVEY RESULTS

A total of 1,144 surveys were mailed to hunters who had received a DWM hunting permit during 2000 and 2001. In the initial mailing, a survey, cover letter, and stamped self-addressed envelope were included. Approximately 4 weeks after the initial mailing, a follow-up mailing was sent to unresponsive hunters encouraging them to respond. The second mailing included another cover letter, survey, and unstamped addressed envelope.

A total of 795 responses were received for a response rate of 69%. Of the 795 responses, 679 indicated they had hunted DWM lands sometime during the last 12 months. The remaining 116 respondents indicated they had not hunted on DWM property.

#### *Hunter Profile*

Most hunters (N=429) lived within the Wachusett watershed or in the surrounding area (Fig. 2). However, hunters did travel from all over the state except the Berkshires. In addition, there were hunters from Maine (N=1), New Hampshire (N=5), and Connecticut (N=1).

An overwhelming majority of hunters were male (N=630, 93%). Nineteen (3%) hunters were female and 30 (4%) hunters did not respond to the question. When examining the age structure of the hunters, the results show that a majority of the hunters were 35 years of older (Fig. 3). Only 23 hunters were younger than 25, and only 3 were younger than 18.

Fig. 2. Distribution of Wachusett watershed hunters (n=679) based on zip codes.

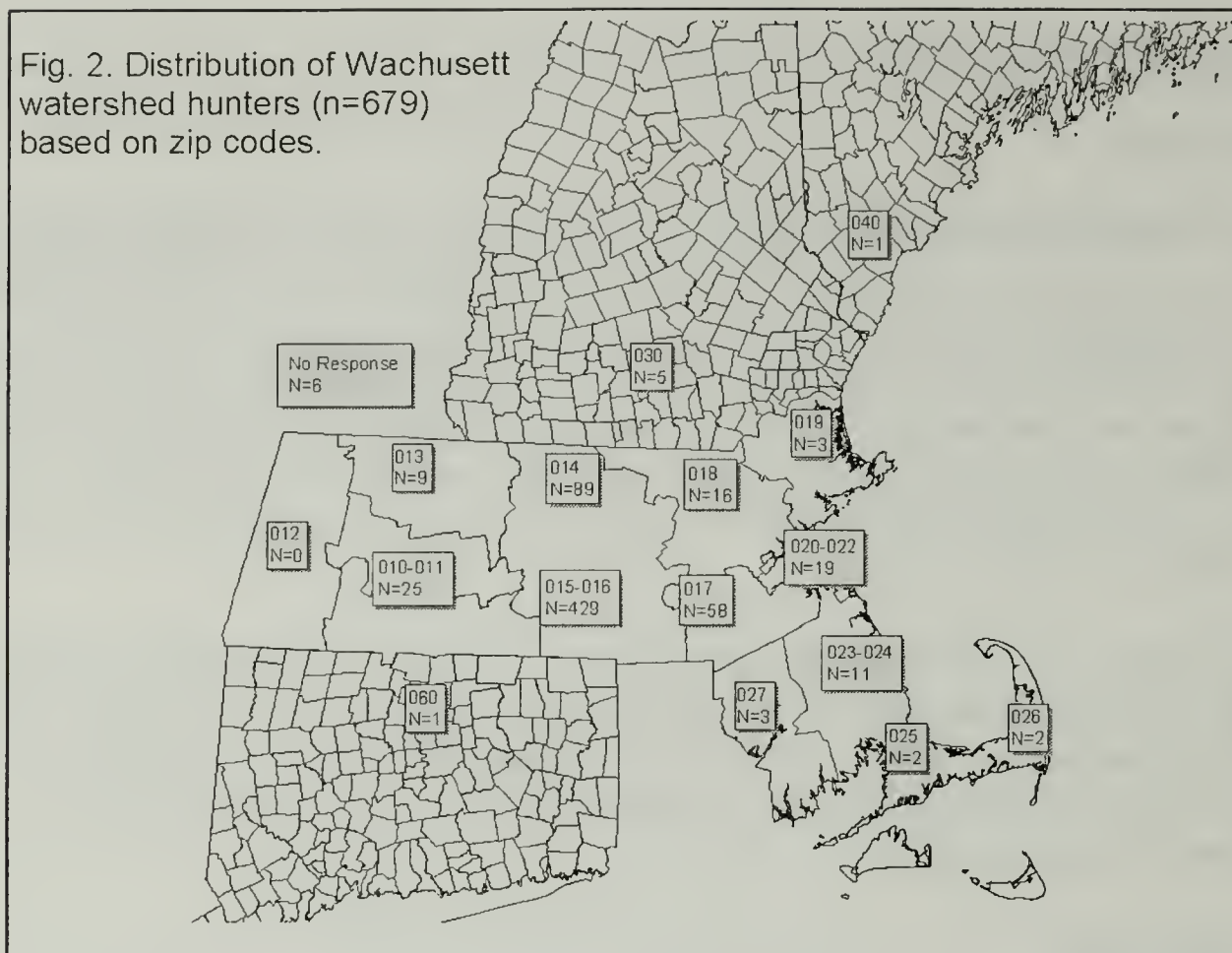
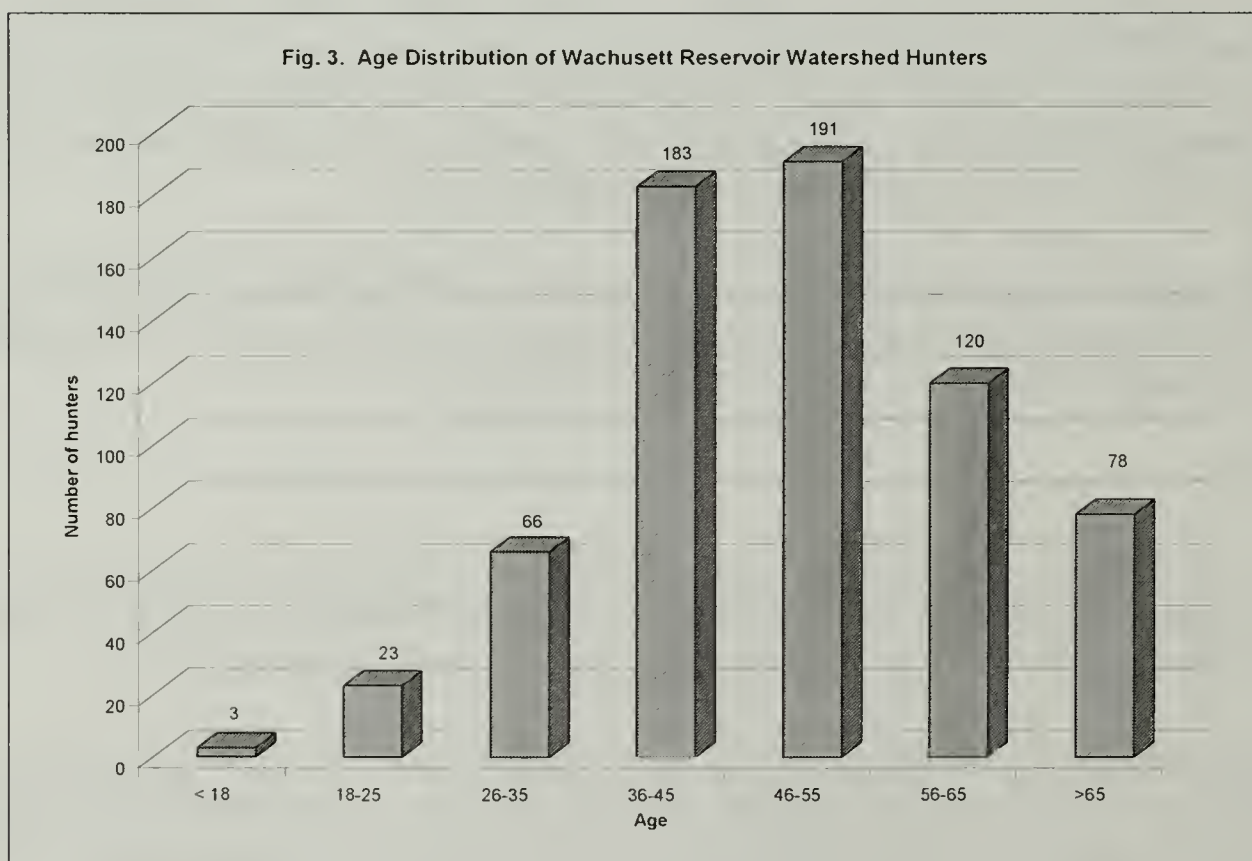


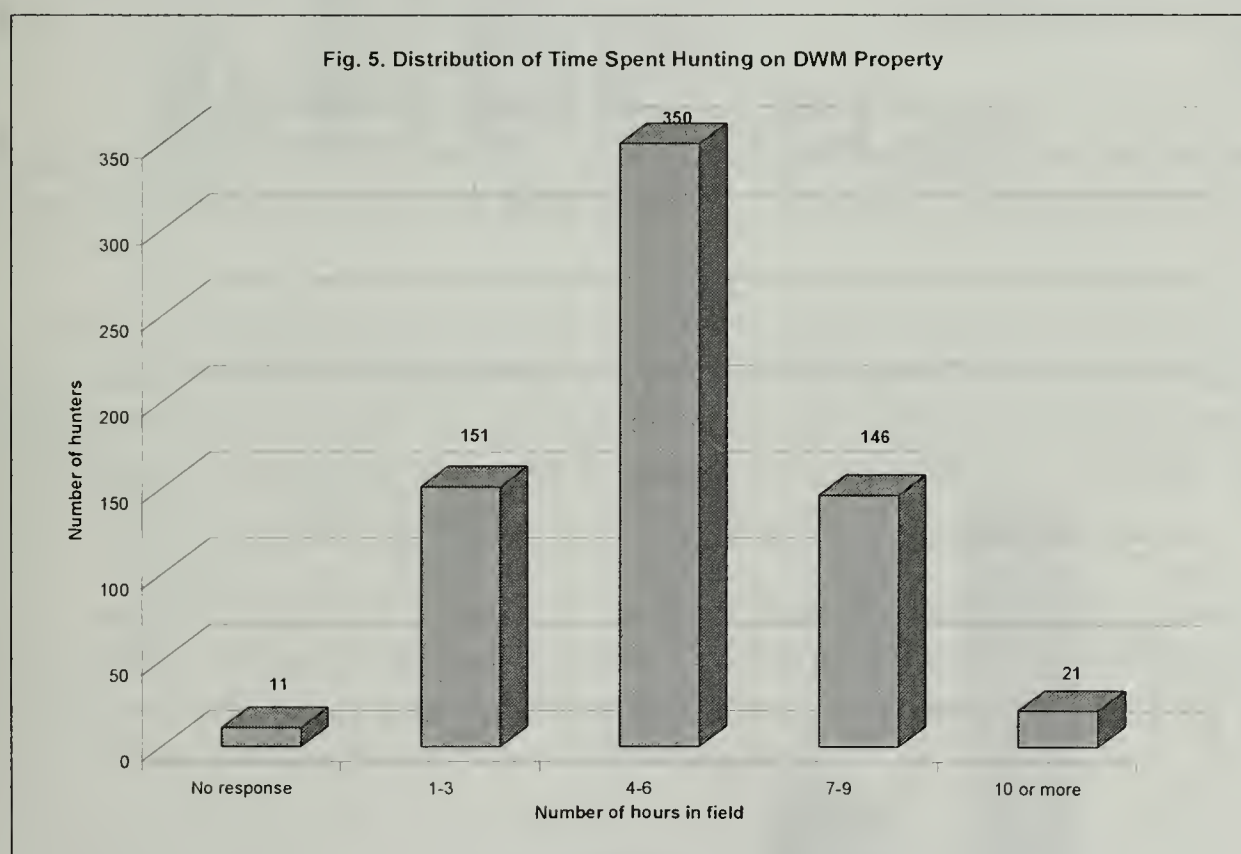
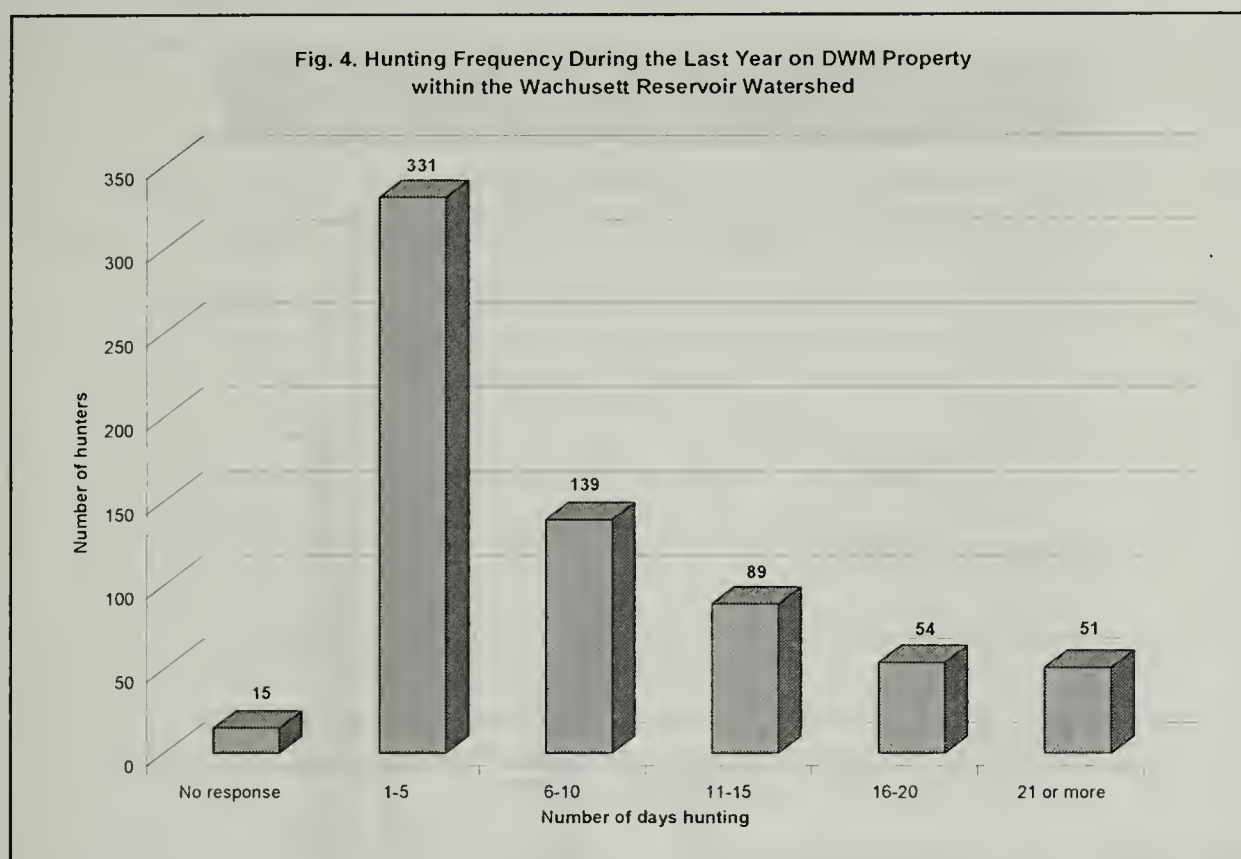
Fig. 3. Age Distribution of Wachusett Reservoir Watershed Hunters



### Hunting Characteristics

Most hunters indicated that they hunted on DWM property for only 1-5 days within the past 12 months (Fig. 4). However, there were a few hunters (N=51) who hunted on DWM property for 21 or more days. When hunting on DWM property, most hunters spent 4-6 hours in the field

(Fig. 5). About equal number of hunters spent either 1-3 or 7-9 hours in the field. Very few hunters spent more than 10 hours hunting.



Deer, turkey, and upland birds were the most popular species pursued by permitted hunters (Table 1). Seventy-two deer, 40 turkey, and 764 upland birds were harvested on DWM property during the last 12 months. All legal games species were pursued by at least 1 hunter on DWM property, however no one harvested any bobcat or bear.

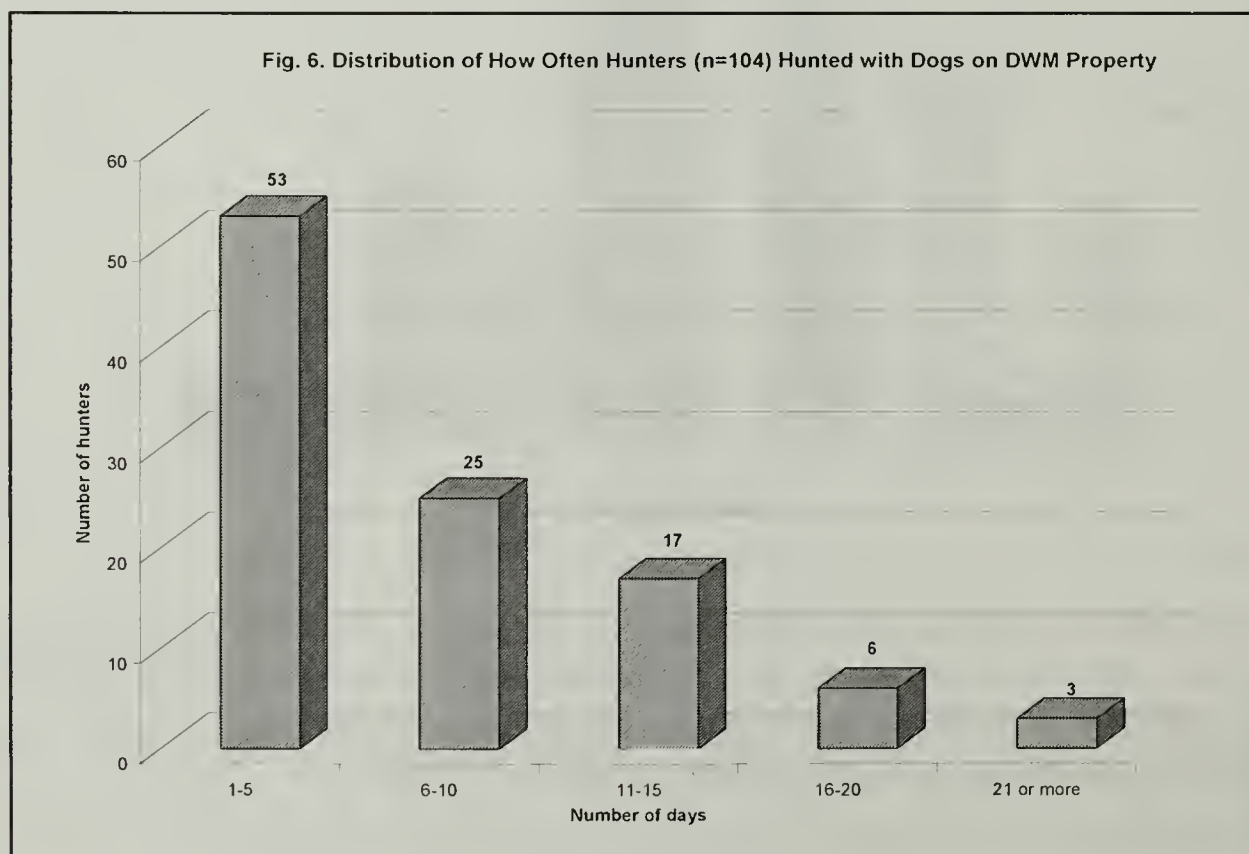
**Table 1.**  
**Summary of Hunters' Responses to Species of Animal Pursued**  
**and Number Killed While Hunting on DWM Property**

Species	# Hunters Pursuing	# Animals Killed
White-tailed deer	597	72
Upland birds <sup>1</sup>	241	764
Turkey	223	40
Coyote	71	38
Rabbit	64	193
Squirrel	47	171
Snowshoe hare	38	36
Waterfowl	31	57
Fox (red or gray)	12	5
Black bear	11	0
Crow	6	118
Raccoon	4	13
Bobcat	3	0

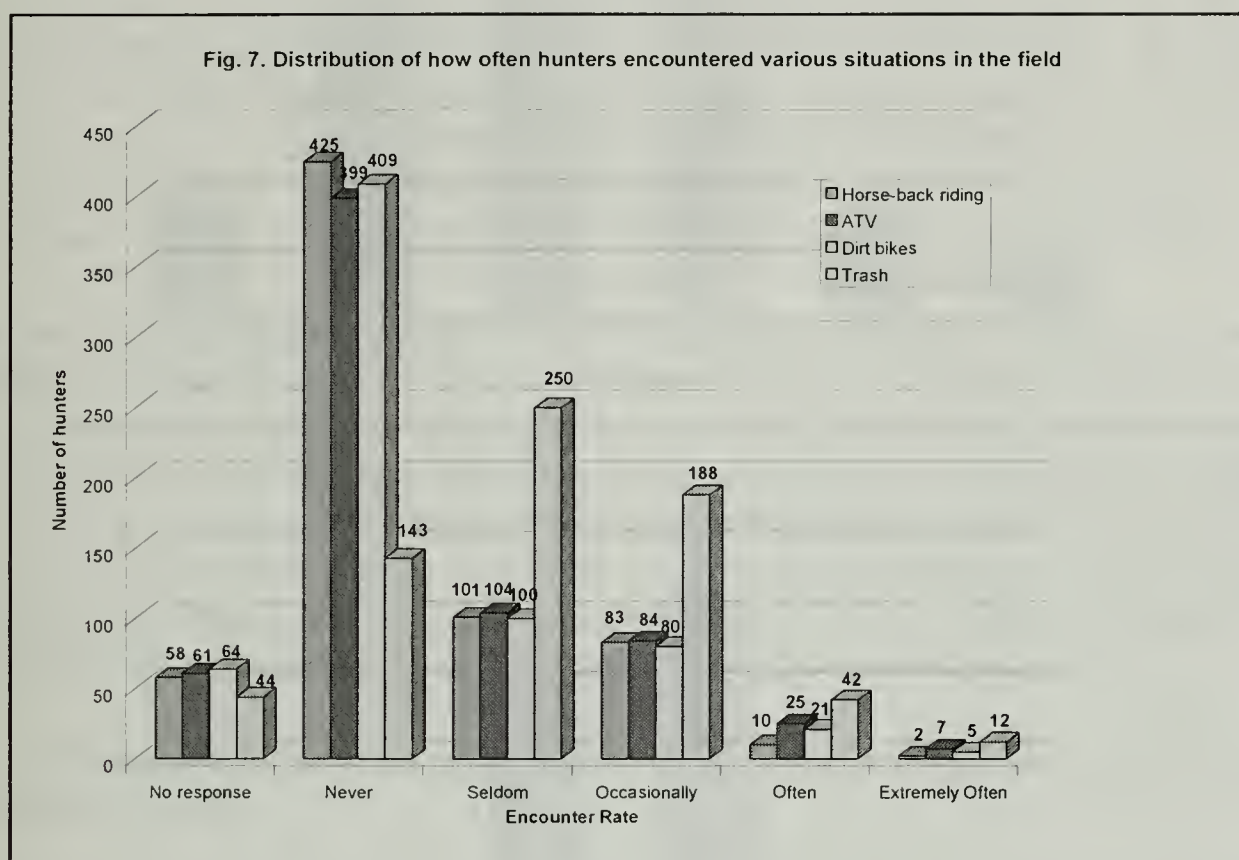
<sup>1</sup> Upland birds includes pheasants, grouse, and quail

Of the 597 hunters pursuing white-tailed deer on DWM property, 471 used shotguns. A total of 296 hunters indicated they used archery equipment to hunt deer, while 212 hunters used muzzleloaders.

A total of 104 hunters indicated that they hunted with a dog on DWM property during the last 12 months. Of the 104 hunters, most (N=53) only hunted 1-5 days during the last year (Fig. 6).

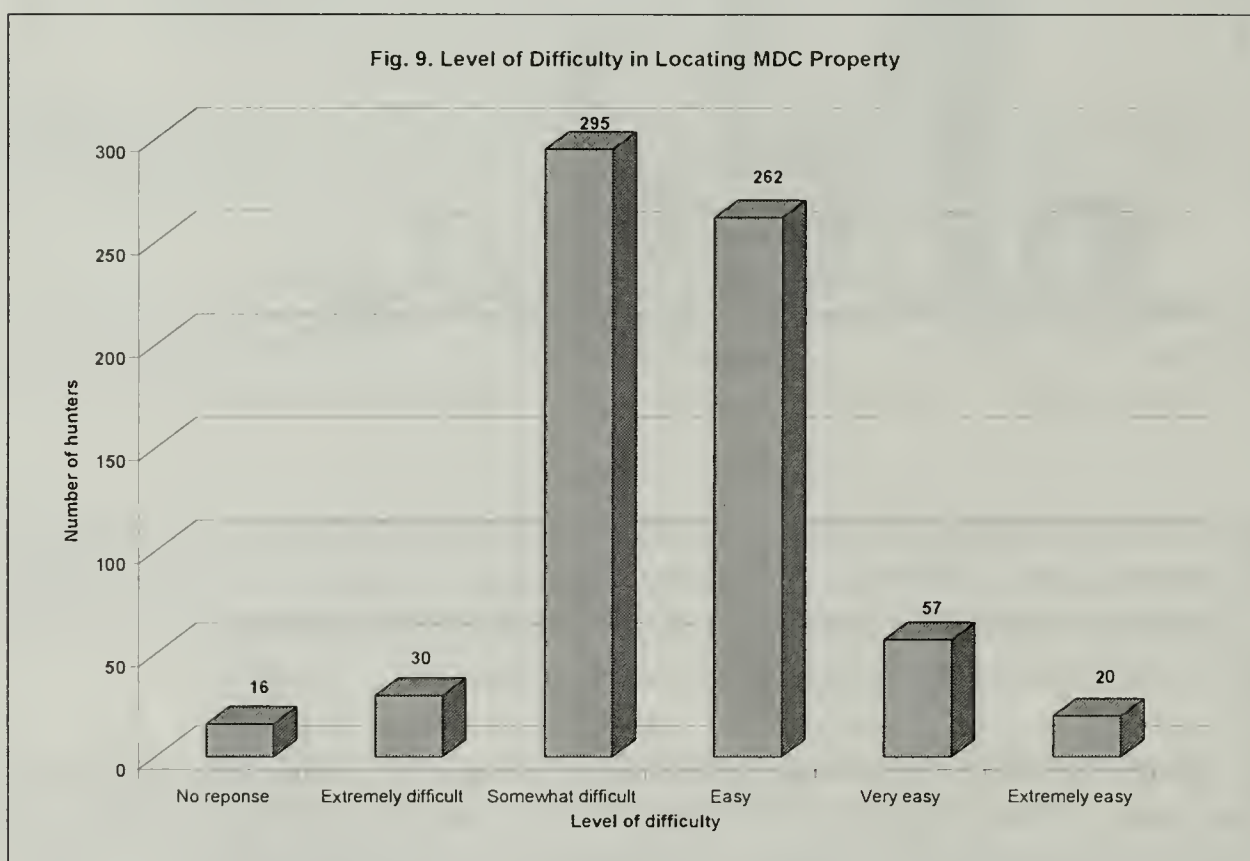
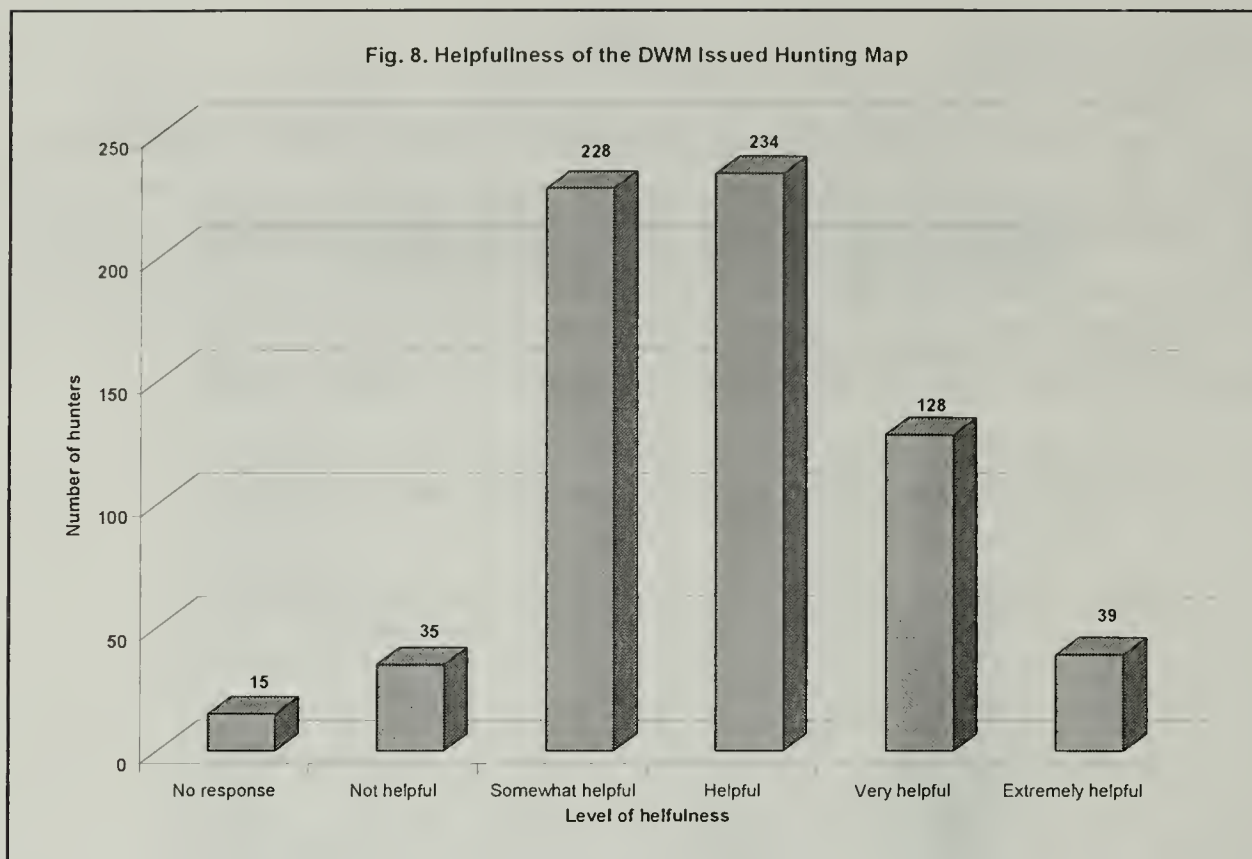


Because hunters may spend long hours in the field over a period of time, the DWM was curious how often hunters encountered prohibited activities and other situations. Hunters were asked how often they encountered horse-back riding, ATV's, dirt bikes, and trash in the field. A majority of the hunters responded that they never encountered horse-back riding, ATV's, or dirt bikes (Fig. 7). However, trash was encountered by hunters at a much higher rate. Very few hunters indicated that they encountered these circumstances extremely often.



Each hunter receiving a hunting permit is issued a map that depicts lands where hunting is permitted and not permitted. Hunters were asked to rank the helpfulness of these maps. A majority of the hunters thought the map was helpful or somewhat helpful (Fig. 8). Very few hunters found the map extremely helpful or not at all helpful.

DWM land is sometimes difficult to locate in the field because of inadequate signage or obscure access points. When asked how difficult it was in actually locating DWM property, a majority of the hunters found it to be easy or only somewhat difficult (Fig. 9). Very few hunters thought it was extremely difficult or extremely easy.



Hunters were given the opportunity to write in comments at the end of the survey. A majority of hunters took the time to write something in the space provided. Comments were varied and diverse. However, there were some comments repeated by many hunters and these included:

- Issue a more detailed map using topography as a base (written by ~75% of the hunters)
- Open more areas to archery and hunting
- Expressing general happiness to be able to hunt DWM lands
- Improve boundary markings

- Improve signage
- Increase parking areas
- Purchase more land

A complete list of the comments is provided in Hunter Survey Appendix 2.

## **Management Recommendations**

DWM lands are used by a large number of hunters on a regular basis. Within the hunting community, the data suggests that local hunters utilize DWM lands the most. Based on written comments, DWM land is highly valued. Hunters pursue a range of species on DWM lands, although certain species are more popular. Although a number of hunters utilize DWM lands, it appears that the average hunter spends relatively little time on DWM property during the course of a year. Further, relatively few hunters hunt with a dog on DWM property.

The results pertaining to the encounter rate of various restricted activities are encouraging. It appears that hunters rarely or never encounter horses, ATV's or dirt bikes. Unfortunately, the encounter rate for trash is higher. Although the survey results indicated that hunters felt the hunting map was at least somewhat helpful, written comments are contradictory. While the map may provide a very general overview of where hunting is allowed, it probably doesn't provide the level of detail needed by hunters to easily identify DWM parcels and access points. Locating DWM property in the field proved more difficult. While a large number of hunters indicated it was easy, a larger number of hunters found it somewhat difficult.

In order to address hunter concerns and improve the hunting program's effectiveness, several actions are recommended:

1. Revise the current hunting map. The new map should use the USGS topography as a base, should be larger to improve the scale (make the map double-sided to increase its size), should be issued to future permit applicants, and should be made available to current permit holders.
2. Examine the feasibility of initiating long-term monitoring of both deer herd dynamics in the no-hunting zone and tree regeneration across the watershed. Consider expanding its hunting zone, if deemed necessary, to include more lands east of Interstate I-190. The Division recognizes the potential for some of its no-hunting lands to experience overabundant deer populations. Although primarily focused on the impacts of overabundant deer on tree regeneration, the Division also recognizes that other social issues related to overabundant deer may become more prevalent, such as increased deer/vehicle collisions and personal property damage.
3. Improve signage where possible. Some signs in areas where hunting is allowed say hunting is prohibited or are temporarily marked with hunting allowed. This can cause confusion among hunters, non-hunters, and enforcement personnel.

# 2002 MDC Wachusett Watershed Hunter Survey

*Have you ever hunted on MDC property in the Wachusett Watershed?*

- ☐ Yes [If Yes, please continue to fill out the survey. If No, please stop and mail back the survey in the enclosed envelope.]
- ☐ No

## Part 1: Questions About Yourself:

1. What is your zip code? \_\_\_\_\_
2. What is your age? ☐ less than 18 ☐ 26-35 ☐ 46-55 ☐ greater than 65  
☐ 18-25 ☐ 36-45 ☐ 56-65
3. What is your sex? ☐ Male ☐ Female

## Part 2: Questions About Your Hunting:

4. In the past 12 months, how often have you hunted on MDC property in the Wachusett watershed?
- ☐ 1-5 days    ☐ 11-15 days    ☐ 21 or more days  
☐ 6-10 days    ☐ 16-20 days
5. When hunting on MDC property, how long do you typically spend in the field?
- ☐ 1-3 hours    ☐ 7-9 hours  
☐ 4-6 hours    ☐ 10 or more hours
6. In the past 12 months, which animal species have you hunted for? (please check all that apply)
- |   |  |
|---|--|
| <input type="checkbox"/> White-tailed deer                      | <input type="checkbox"/> Bear              |
| <input type="checkbox"/> Turkey                                 | <input type="checkbox"/> Bobcat            |
| <input type="checkbox"/> Upland birds (Pheasant, Grouse, Quail) | <input type="checkbox"/> Rabbit            |
| <input type="checkbox"/> Coyote                                 | <input type="checkbox"/> Fox (Red or Gray) |
| <input type="checkbox"/> Squirrel                               | <input type="checkbox"/> Raccoon           |
| <input type="checkbox"/> Snowshoe Hare                          | <input type="checkbox"/> Waterfowl         |
| <input type="checkbox"/> Other:                                 |  |

7. Please indicate the number of animals you have harvested in the last 12 months from MDC property.

_____ White-tailed deer	_____ Bear
_____ Turkey	_____ Bobcat
_____ Upland Birds	_____ Rabbit
_____ Coyote	_____ Fox
_____ Squirrel	_____ Raccoon
_____ Snowshoe Hare	_____ Waterfowl
_____ Other: [Please indicate which species]: _____	

OVER

8. If you have hunted white-tailed deer in the past 12 months on MDC property in the Wachusett watershed, which method did you use to hunt? (please check all that apply)

- |                          |         |                          |                   |
|--------------------------|---------|--------------------------|-------------------|
| <input type="checkbox"/> | Archery | <input type="checkbox"/> | Muzzleloader      |
| <input type="checkbox"/> | Shotgun | <input type="checkbox"/> | Did not hunt deer |

9. In the past 12 months have you hunted with a hunting dog on MDC property in the Wachusett watershed?

- ☐ Yes [If Yes, please answer Question #9. If No,  
☐ No please skip to Question #10.]

10. In the past 12 months, how frequently have you hunted with a hunting dog on MDC property?

- ☐ 1-5 days  
☐ 6-10 days  
☐ 11-15 days  
☐ 16-20 days  
☐ 21 or more days

### Part 3: Questions Related to the MDC

11. While hunting on MDC property, how often do you encounter the following activities/situations?

- |                       |                                |                                 |                                       |                                |  |
|-----------------------|--------------------------------|---------------------------------|---------------------------------------|--------------------------------|--|
| a. Horse-back riding: | <input type="checkbox"/> Never | <input type="checkbox"/> Seldom | <input type="checkbox"/> Occasionally | <input type="checkbox"/> Often | <input type="checkbox"/> Extremely Often |
| b. ATV's:             | <input type="checkbox"/> Never | <input type="checkbox"/> Seldom | <input type="checkbox"/> Occasionally | <input type="checkbox"/> Often | <input type="checkbox"/> Extremely Often |
| c. Dirt Bikes:        | <input type="checkbox"/> Never | <input type="checkbox"/> Seldom | <input type="checkbox"/> Occasionally | <input type="checkbox"/> Often | <input type="checkbox"/> Extremely Often |
| d. Garbage/Trash:     | <input type="checkbox"/> Never | <input type="checkbox"/> Seldom | <input type="checkbox"/> Occasionally | <input type="checkbox"/> Often | <input type="checkbox"/> Extremely Often |

12. How helpful is the MDC hunting map that's issued with your permit in locating MDC parcels?

- ☐ Not helpful at all  
☐ Somewhat helpful  
☐ Helpful  
☐ Very helpful  
☐ Extremely helpful

13. How difficult is it actually locating MDC property in the field when you are trying to hunt?

- ☐ Extremely difficult  
☐ Somewhat difficult  
☐ Easy  
☐ Very easy  
☐ Extremely easy

14. Are there any specific comments or suggestions you have regarding hunting on MDC property in the Wachusett watershed?

THANK-YOU FOR YOUR PARTICIPATION

## Hunter Survey Appendix 2: Written Comments from the Wachusett Hunter Survey, 2002

1. Make maps clearer showing more detail with GPS points (of boundaries), cart roads, stonewalls, boundaries, legal parking areas, access points, all overlaid onto a topographic map.
2. Open more areas to archery and hunting, especially closer to the reservoir to enable hunters to get more waterfowl.
3. Many hunters are very happy with MDC policies, land acquisition.
4. Increase available parking areas.
5. Purchase more land.
6. Increase handicap access to hunting areas.
7. MDC boundaries should be more clearly marked.
8. Improve signage to state the following:
  - a. Hunting allowed or disallowed (permanently marked- no tape which can be removed by those opposed to hunting)
  - b. All hikers must wear hunter orange during the hunting season
  - c. Dogs must be leashed
  - d. Color code "hunting allowed" on signs
  - e. On Rail Trail, put up signs saying hunter alert
  - f. Post rules, regulations, and hunting dates to reduce conflicts
9. Educate public on hunting and its benefits. Many hunters are being harassed by people opposed to hunting. Some have actually been escorted off of MDC property by the local (especially Princeton) and state police who are unsure of MDC rules on hunting.
10. Improve enforcement of NO ATV's, dirt bikes, and unleashed dogs.
11. Make more rubbish barrels available along trails and then try to enforce correct disposal of waste. Fine people who litter.
12. Many hunters bring bags to collect rubbish and believe that others should do likewise.
13. Clean up Kristoff property and other properties where trash has accumulated.
14. Control exotics, maintain "edge" cover and increase mixed/transitional cover; keep fields open for songbirds, begin plantings (food plots for deer) for particular species, try to manage habitat to increase biodiversity.
15. Charge hunting fees and utilize dollars to purchase more land.
16. Make hunting permit smaller (wallet size).
17. Use sign posts and not trees.
18. Open land for trapping.
19. Allow horses and snowmobiles.
20. Allow ATV's for dragging out deer, especially for those with health issues such as heart disease.
21. Allow ATV's for general use but charge a \$10 fee.
22. Open areas 1 hour before daylight.
23. Extend coyote season because there are too many of them.
24. Sell topo maps.
25. Allow dogs.
26. Fix signs that are down.
27. Allow hunting and archery on Sunday.
28. Remove all old signs saying "no hunting" in areas open to hunting.

29. Make hunting permits:
  - a. Issued for a lifetime
  - b. Easier to obtain
  - c. Renewal applications sent out when necessary
  - d. Not necessary – use MA license only
30. Allow rifles for deer hunting.
31. Stock pheasants and more deer.
32. Notify hunters of newly acquired parcels.
33. Give hunters gate keys especially for old town roads.
34. Areas are too fragmented.
35. No police power for rangers.
36. Why are fishermen allowed complete shoreline access and not hunters.
37. Do a deer survey and make public the number and location of deer.
38. Get together with wildlife people (hunter did not give a reason).
39. Use a lottery similar to the Quabbin hunt to determine how many hunters allowed to utilize MDC property.
40. Trim back fire roads that are growing in.
41. Open Kristoff's to vehicles.
42. Increase number of port-a-potties.
43. Abutters should have access to MDC property, and if you do hold a permit, you should be allowed to bring 2 non-permit holders as guests.
44. Many moose.
45. MDC makes good neighbors.
46. No deer.
47. Steve Drawbridge forever missed.
48. Some hunters worried that this survey will be used as a tool to eliminate hunting at MDC.

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## Appendix B: Watershed Regulations (350 CMR 11.09)

### 350 CMR 11.00: WATERSHED PROTECTION

#### 11.09: General Rules and Regulations for the Protection of Watersheds and the Watershed System

In order to facilitate review of all regulations promulgated by the Commission and the Division relating to Watersheds and the Watershed System, this Section includes regulations of general applicability to Waters of the Watershed System. The regulations in 350 CMR 11.09 are intended to supersede the regulations in 310 CMR 23.00, 350 CMR 8.01, 350 CMR 9.00, and 350 CMR 10.00.

##### (1) Waters of the Watershed System.

(a) No Person shall take or divert any Waters of the Watershed System of the Commission and no Person shall corrupt, render impure, waste or improperly use any such water.

(b) No Person shall:

1. engage in any construction activity involving filling, dredging, grubbing or altering land without adequate provisions to prevent erosion resulting in clay, silt or other turbidity laden waters from entering the Waters of the Watershed System;

2. construct, establish or maintain any agricultural facility or place where animal manure may be deposited or accumulated without adequate provision to prevent any manure or other Pollutant from flowing or being washed into the Waters of the Watershed System;

3. engage in any other activity which could degrade the quality of Waters of the Watershed System or interfere with their use as a source of water supply.

(c) No Person shall allow a condition to exist on such Person's property which could result in the direct or ultimate discharge of any Pollutant into the Waters of the Watershed System.

(d) Any records of any board of health or health agent concerning matters within the Watershed shall be open to inspection by the employees and agents of the Commission and the Department.

(e) Whenever an incident occurs, is likely to occur, or a situation exists that threatens to add Pollutants to the Waters of the Watershed System, the Person causing or contributing to the pollution or potential pollution shall notify the Commission and the Department immediately.

##### (2) Watershed System.

###### (a) General Regulations.

1. Entrance on and exit from land of the Watershed System shall be made through gates or other designated areas.

2. No Person is allowed within any land of the Watershed System, except from one hour before sunrise to one hour after sunset, unless authorized by a written permit from the Commission or its designee.

3. Powered boats are prohibited within the Waters of the Watershed System except in areas designated by the Commission or its designee.

4. All acts which pollute or may pollute the water supply are prohibited. No litter or refuse of any sort may be thrown or left in or on any land or water within any Watershed System. All Persons within said System shall use the sanitary facilities provided for public use.
5. All acts which injure the property of the Commonwealth are prohibited. No Person shall injure, deface, destroy, remove or carry off any property, real or personal, under the care and control of the Commission, including but not limited to, all historic artifacts and natural materials. The removal of gravel, topsoil, stones, boulders, or other earthen material is prohibited from the Watershed System except for removal for official use for land management purposes by Commission staff. No Person shall build or construct any object or structure of the property of the Commonwealth except with the written permission of the Commission or its designee.
6. Cooking and all fires are prohibited within the Watershed System.
7. No Person shall wade or swim in any reservoir except wading while using boots for the purpose of launching boats at designated boat launch areas.
8. No Person shall wade or swim in any Tributary or Surface Waters on or within the property of the Commonwealth except at areas designated by the Commission or its designee.
9. Organized sports activities, including but not limited to orienteering and baseball, are prohibited in the Watershed System except by written permit from the Commission or its designee.
10. Any violation of 350 CMR 11.09 will be deemed sufficient cause for revocation of fishing privileges for a period of time not less than one year from the time of violation. The Commission and its employees are not responsible for any damage to or loss of property sustained by fishermen, or for any injury or loss of life which may be incurred in connection with public use of the reservoirs and Watershed System.
11. Breach of peace, profanity or other disorderly conduct offensive to the general public is strictly prohibited within the Watershed system. Possession of and drinking of alcoholic beverages is prohibited within said System.
12. No Person shall drive a motorized vehicle within the Watershed System except upon roads authorized for such use by the Commission or its designee. Recreational vehicles are prohibited on all Watershed System property except the use of snowmobiles in areas designated by the Commission or its designee. Motor vehicles shall be parked only in areas designated by the Commission or its designee. Operators of motor vehicles shall obey all regulatory signs unless otherwise directed by a police officer or person in charge. No Person shall willfully obstruct the free passage of vehicles or Persons within the Watershed System. Vehicle access for official use may be granted by the Commission or its designee.
13. No Person shall bring any animal within any Watershed System property except for horses and dogs at the Ware River Watershed at areas designated by the Commission or its designee.
14. The use of bicycles, skis and other means of non-motorized transportation within the Watershed system shall be permitted only in areas designated by the Commission or its designee.

15.No Person, except in an emergency, shall bring, land or cause to descend within any Watershed System property any aircraft except with a written permit from the Commission or its designee.

16.Parades, games, fairs, carnivals, fishing derbies, bazaars, gifts or solicitations for raising or collecting funds shall not be permitted within the Watershed System without written approval of the Commission or its designee.

17.Lotteries, raffles, gambling and games of chance are prohibited; and no Person shall have possession of machinery, instruments or equipment of any kind for use of same in the Watershed System.

18.Public assemblies of more than 25 persons shall not be allowed within the Watershed System without a written permit from the Commission or its designee.

19.No Person shall engage in any business, sale or display of goods or wares within the Watershed System without a written permit from the Commission or its designee.

20.Commercial signs and advertising are prohibited in the Watershed System.

21.No Person shall have possession of or discharge any weapon, firearm, fireworks, or other explosive on or within the Watershed System except at times and areas designated by the Commission or its designee. All forms of target shooting are prohibited on or within the Watershed System.

22.No Person may hunt, shoot or trap animals on or within any Watershed System property except at times and in areas designated by the Commission or its designee.

23.All Persons within the Watershed System shall obey the lawful directions of regulatory signs, police officers or persons in charge, or of Federal or Commonwealth wardens or enforcement officers.

24.The Watershed System or parts thereof may be closed for public access at the discretion of the Commission or its designee when necessary to protect the lands and waters under the care and control of the Commission.

25.The possession of all types of metal detectors or similar devices is prohibited on all of the Watershed System property.

(b) Special Regulations for Quabbin Reservoir.

1. Persons in compliance with Commonwealth Fish and Game Laws and Regulations, will be allowed to fish from shore in areas designated by the Commission or its designee. A valid state fishing or sporting license is required by any Person renting or launching a boat at any Commission facilities subject to 350 CMR 11.09. Reasonable fees for the use of boats, for rental of outboard motors for fishing purposes, or use of Commission facilities including parking and boat ramps, may be charged by the Commission.

2. Persons permitted to fish from boats shall, at all times, be responsible for the sanitary condition of the boats. Persons under 16 years of age must be accompanied by a Person possessing a valid fishing license in order to boat on Quabbin Reservoir.

3. Only boats of a minimum length of 12 feet, and of a type considered safe by the Commission representative in charge, shall be used. No inboard motors, collapsible boats, sailboats, pontoon boats, square sterned canoes, or other similar craft will be permitted in the water, and no boats

will be permitted in the water except in areas designated for boating by the Commission or its designee. Outboard motors shall have a rating of not more than one-half the BIA or OBC rated horsepower for the boat and shall not exceed 20 horsepower, except that outboard motors for Commission boats less than fourteen 14 feet six inches in length shall not exceed ten horsepower. Boats less than 14 feet six inches in length will be limited to three occupants, and boats of that length and in excess thereof may be licensed to carry four occupants. No boats shall carry more than four occupants. Canoes and jon boats of a minimum length of 12 feet, and of a type considered safe by the Commission representative in charge, shall be used and only in areas designated for boating by the Commission on Pottapaug Pond above the regulating dam and at Gate 31 above the regulating dam. Canoes less than 16 feet and jon boats less than 14 feet six inches in length will be limited to two occupants, and canoes and jon boats in excess thereof may be licensed to carry three occupants. All boats must be in compliance with current Commonwealth Boating Laws. All boats must be clean and contain no refuse of any kind. Commission personnel shall have the right to inspect all private boats launched at Commonwealth facilities and may deny access in order to protect water quality or the safety of occupants. Chock blocks must be used on vehicles when removing boats from the Reservoir.

4. No Person shall operate a motor boat at a speed other than reasonable and proper or in such a manner as to annoy or endanger the occupants of other boats.

5. Fishing from the shorelines of the Quabbin Reservoir and its Tributaries within the Watershed System or from boats shall be allowed only during a season designated by the Commission or its designee. All privately-owned boats, motors and other equipment must be removed from the property of the Commission each day.

6. Boats shall not leave the mooring areas before dawn, and must return at the time posted at each mooring area. The beaching of boats at any point except at the designated mooring and landing areas is strictly prohibited, except in cases of extreme emergency.

(c) Special Regulations for Ware River.

1. Persons in compliance with Commonwealth Fish and Game Laws and Regulations will be allowed to fish in the Ware River in areas designated by the Commission or its designee.

2. Powered boats and powered canoes are prohibited within the Ware River Watershed Reservation.

(d) Special Regulations for Wachusett Reservoir.

1. Persons in compliance with Commonwealth Fish and Game Laws and Regulations will be allowed to fish from the shore of Wachusett Reservoir in areas designated by the Commission or its designee.

2. Boating is prohibited in Wachusett Reservoir.

3. Fishing from the shoreline of the Reservoir shall be allowed only during a season designated by the Commission or its designee.

(e) Special Regulations for Sudbury Reservoir.

1. Persons in compliance with Commonwealth Fish and Game Laws and Regulations will be allowed to fish from the shore of Sudbury Reservoir in areas designated by the Commission or its designee.

2. Boating is prohibited on Sudbury Reservoir except in areas designated by the Commission or its designee.

## Appendix C: Summary of Public Input to the Wachusett Reservoir Watershed Public Access Plan Update 2003

The following is a summary of the comments received by the MDC/DWM in writing and in-person at the June 24, 2003 public hearing.

**Public Comment:** Is it possible to have angular parking instead of parallel parking in the popular Old Stone Church area?

*MDC Response:* The MDC does not have authority over the right-of-way in this area. This solution to the parking issue will be discussed with the proper authorities, either Mass Highway or the Town of West Boylston.

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**Public Comment:** Does this plan alter the downstream limits for fishing with waders and boating on the rivers?

*MDC Response:* No. The draft plan had some minor errors. Fishing with waders is still allowed on the Quinapoxet River upstream of the MDC Dam at the Oakdale Power Station and upstream of the Stillwater River confluence with Waushacum Brook. Canoeing is allowed on the Stillwater River upstream of the take-out at the steel bridge at Muddy Pond Rd. and on the Quinapoxet River upstream of the turn-off on River Rd. between Canada Mills and the Oakdale Power Station. Placement of signs at the boat take-out locations has been placed as an item in the plan's implementation.

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**Public Comment:** The Town of West Boylston has several concerns about access and use of MDC property for its residents.

*MDC Response:* MDC Division of Watershed Management property primary purpose is water quality protection. Public access is controlled by legislation and DWM policies. The 2003 Wachusett Reservoir Watershed Public Access Plan Update maintains many existing opportunities for the public to enjoy MDC property, including hiking, cross-country skiing, fishing, hunting and bicycling. The plan limits activities to areas where there is minimal impact to water quality. The possibility exists for municipalities to negotiate lease agreements for use of DWM property. Any such contracts, however, will stipulate measures required to protect water quality. If a municipality desires to obtain existing MDC/DWM land either through a long-term lease or in fee (ownership), then it must follow the procedures described in both the Executive Office of Environmental Affairs and the MDC/DWM land disposition policies; transfer of ownership ultimately requires an act of the Legislature.

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**Public Comment:** Does the integration of the former Off-Watershed Zone property into the Intake Protection Zone mean that there will be more prohibited activities in that area?

*MDC Response: The plan update has integrated the Off-Watershed Zone into the Intake Protection Zone in order to simplify the public’s understanding of this well traveled section of the watershed. The plan does not propose any changes in the allowed uses in the former Off-Watershed Zone.*

**Public Comment:** Will logging continue on MDC land in the Wachusett Reservoir watershed? Are logging operations managed for wild game?

*MDC Response: Yes, MDC will continue silvicultural operations in the Wachusett Reservoir watershed. The agency’s policies are described in Wachusett Reservoir Watershed Land Management Plan 2001-2010. The primary goal of DWM’s silvicultural activities is water supply protection; promoting a diverse ecosystem is an objective to meet that goal. All MDC/DWM logging has recently been “Green Certified.” This independent assessment acknowledges that trees harvested by MDC/DWM meet the highest standards of environmental protection.*

**Public Comment:** There are some significant areas of dumping in the watershed.

*MDC Response: Illegal dumping has been an on-going problem for the agency in the watershed. The plan proposes some solutions through placement of barriers, continued patrolling by the Watershed Rangers, and enforcement actions with the assistance of the State Police.*

**Public Comment:** What is the intent of biking on the existing rail trail, and is it now open for biking? What are the MDC’s commitments toward other trail developments? Can additional areas of the Tributary Headwaters Zone be opened for off-road bicycling

*MDC Response: A major reason why the MDC has supported the Mass Central Rail Trail is to provide a place for people to walk and bike in a safe area that minimizes water quality impacts to the Wachusett Reservoir. The rail trail has been a great success. Although it is not yet finished, the sections of the rail trail that pass through MDC land in Sterling are currently open for biking. The MDC will consider partnerships, such as the existing work with Wachusett Greenways, with any group toward the development of future bike trails, however it is up to an organization to initiate any dialogue with the agency. Existing staff limitations do not allow the MDC to open additional lands for off-road bicycling. Security and water quality impacts will be considered in any decisions made towards the development of trails.*

**Public Comment:** Will police presence in the watershed be curtailed due to budget cuts and/or the elimination of the MDC?

***MDC Response:** The Watershed Ranger program is not expecting to be cut in any way. The MDC currently has an excellent relationship with Massachusetts State Police based in the Holden barracks and receives great support from both the State Police and the Environmental Police. Major changes are not expected in police support.*

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**Public Comment:** Is it possible to fix the existing fish ladder at the Oakdale Dam?

***MDC Response:** Discussions have been held with both federal Fish and Game and the State Division of Fisheries and Wildlife concerning this issue. A design has been recommended for a fish ladder on the opposite side of the dam from its current location. MDC will coordinate with whoever obtains funding for this project to ensure access and minimize construction related impacts.*

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**Public Comment:** Creation of more parking spaces will lead to a much greater use of MDC/DWM lands than would be beneficial for water quality.

***MDC Response:** The agency agrees that creating large parking areas would make MDC lands more attractive for users from outside the area. MDC/DWM is proposing only small parking areas in locations where access already occurs and/or there is dangerous on-street parking.*





